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ABSTRACT

Child labor, which is children's work that is exploitative and dangerous, poses a major human rights and socioeconomic challenge. Universal primary education may be the most effective instrument for meeting this challenge. The expansion of compulsory primary schooling could reduce hours of work by children and help them protect themselves against exploitation. This report on the relationship between education and child work contains the following chapters: (1) "Introduction," discussing how welfare activists see education as the best means of eliminating child labor; (2) "Schooling as a Deterrent to Child Labour"; (3) "Combining School and Work"; (4) "Economic Constraints against School Participation"; (5) "Social Causes in Child Work and Low School Participation"; (6) "Family Causes of Child Work and Low School Participation"; (7) "Discrepancies in Education between Rural and Urban Areas; (8) "Gender Differences in Education and Work," including levels of education participation, economic impact, and discrimination; (9) "The Responsibilities of Growing Up"; (10) "School as a Cause of Work," focusing on the shortage of funds for education, a critique of orthodox approaches, systemic problems, and teacher attitudes; (11) "The Educational Function of Work"; (12) "The Impact of Work on Education," including physical and mental health impacts; and (13) "Conclusion: Some Policy Implications Suggested by Research of Education and Work," asserting that genuine reform will be facilitated only by governmental commitment to increase resources to primary education and to support school reform measures--flexibility of scheduling and making curricula and teaching methods more suited for low-income children and families. (Contains 172 references.) (BGC)

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THE RELATIONSHIP BETWEEN EDUCATION AND CHILD WORK

Jo Boyden

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THE RELATIONSHIP BETWEEN EDUCATION AND CHILD WORK

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CRS 9

September 1994

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The views expressed in this paper are those of the author and do not necessarily represent the policies or views of UNICEF.

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This *Occasional Paper* is one of several publications that mark the initiation of a new project at the International Child Development Centre concerned with applied research and policy studies aimed at combating child labour. The Centre's Child Rights Programme seeks to promote the effective implementation of several important articles of the United Nations Convention on the Rights of the Child (CRC), this child labour project being concerned especially with Article 32. In addition, however, this new initiative recognizes explicitly the close link between eliminating child labour and the goal adopted at the 1990 World Summit For Children of expanding basic and more relevant education, especially primary education, as a 'twin' political challenge but representing, as well, a legally binding obligation for all nations that have ratified the CRC. This project has been initiated first in the Latin America and Caribbean Region, with partial support provided by the Government of Sweden and with the cooperation of the International Labour Organisation. The focus of that regional undertaking is described in *Innocenti Essay* No. 6: 'Child Labour and Basic Education in Latin America and the Caribbean: A Proposed UNICEF Initiative' (Florence, May 1994) by James R. Himes, Vicky Colbert de Arboleda and Emilio Garcia Mendez.

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EXECUTIVE SUMMARY

Millions of children throughout the developing world work. Not all child work should be cause for concern. Some work activities develop practical knowledge and skills and reinforce children's sense of self-esteem and unity with their families. It is, instead, children's work that is exploitative and dangerous ('child labour') that poses a major human rights and socio-economic challenge. Universal primary education may be the single most effective instrument for meeting this challenge, but because of research inadequacies and the multiplicity of factors involved, a neat causal relationship cannot be established. Drawing on case studies from different countries and exploring the many different ways child work and education are interconnected, this paper seeks to pinpoint priority concerns that need to be addressed in order to eliminate child labour.

A key issue is the role legal compulsion has in combating child labour. Research has shown the effectiveness of early European labour laws prohibiting the employment of children who had not completed compulsory schooling. However, these laws, applicable largely to the formal sector and enforced through worksite inspection, are difficult to transfer to the vast informal economies of the developing world. Laws making education compulsory are probably easier to enforce and are thought by some to be precursors to the elimination of child labour.

Compulsion alone, however, cannot remove all the social and economic obstacles that combine to keep children out of school and at work. It may also have a negative effect on child and family welfare. Compulsory education, moreover, does not always free children from their work obligations. Worldwide, children combine school and work, often at a high personal cost in terms of their health, education and welfare.

While education cannot stop part-time employment, it is likely to have an important impact on full-time work. The expansion of compulsory primary schooling, thus, could lead to a reduction in the hours of work undertaken by children and benefit children who are least likely to be in school. Education may also help children to protect themselves against exploitation.

Although work is commonly held to be the main cause of school drop-out, the reverse is also true: school can be a cause of work. Many children work to pay the direct and indirect costs of schooling for themselves or their siblings. Other children work because they are discouraged by the poor quality of schools. Often the curriculum is dull, overly academic and irrelevant to local socio-economic realities. Teachers' attitudes may seriously undermine children's self-esteem; girls especially are frequently neglected and subjected to gender stereotyping. Systemic problems are particularly notable in rural areas, where schools tend to be overcrowded and dilapidated, and shortages of trained teachers may be severe.

Gender differences in levels of work and education participation are significant. Girls tend to work far longer hours than boys. Because of the critical contribution girls often make to household maintenance and child care, releasing mothers to take up paid work outside the home, educating girls has a high opportunity cost. In some cultural settings, attracting more girls into schools may require using female teachers or having segregated schooling. It will also require changing attitudes so that greater value is placed on the work women do, new roles are provided for girls and women within the labour market, and greater recognition is given to the returns to society as a whole from the education of girls and women.

Genuine reform can only be brought about by the commitment by governments to increase resource allocations to primary education and to support school reform measures such as greater flexibility of scheduling, and curricula and teaching methods more geared to the lives and expectations of low-income children and their families. But education alone cannot solve the problem of child labour which is often protected by powerful vested interests, may involve virtually 'invisible' children such as domestic servants, and is sometimes controlled by organized crime rings. It will take the concerted and combined efforts of many sectors of the civil society, including the media and activist NGOs, and multi-sectoral governmental interventions to remove children from the exploitation inherent in child labour. Public-sector measures should include poverty alleviation and fiscal and labour market reform, intended to relieve the economic and social burdens of poor families and bring an end to dependence on child labour.

The 1989 United Nations Convention on the Rights of the Child specifies that:

> States Parties recognize the right of the child to be protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development (Article 32.1).
>
> States Parties recognize the right of the child to education, and with a view to achieving this right progressively and on the basis of equal opportunity, they shall in particular...[m]ake primary education compulsory and available free to all (Article 28.1a).

I. INTRODUCTION

> "If you are to plan for one year, you plant rice; if you are planing for five years, you plant trees; if you are planning for a generation and for the future, you educate your children."
>
> —Prime Minister of Saint Lucia, quoting from an old Chinese proverb, at the first World Summit for Children, New York, September 1990.

Millions of children in developing countries today work, many of them in extreme adversity. The use and abuse of child labour is one of the most important humanitarian and economic challenges facing developing country governments at the present time. But the problem appears intractable: in many countries, small-scale employers and families alike depend crucially on the earnings and work of juveniles; as children are withdrawn from one occupation, so they emerge in another.

Of course, child labour was once a major concern in the industrialized countries of Europe, in North America and in Japan. Precisely because eradication in these areas has apparently been so successful, many historians are tempted to draw parallels with, and provide lessons for, the developing world today. At one time, labour legislation and worksite inspection were thought to have been the principal agents of child labour reform in the industrialized world. Following this example, many developing countries have introduced legislation setting a minimum age for work, proscribing child labour in hazardous activities and regulating children's involvement in others less harmful. Most countries, however, have been discouraged by the poor results. More recently, historians have begun to highlight other historical forces in the reduction in child labour, such as developments in technology, increased family wealth, the organization of adult labour, compulsory education and the emergence of new ideologies about childhood.[1]

As it now seems that education played a key role in the elimination of child labour in the industrialized countries, many welfare activists pin their hopes on schooling as the most effective single instrument of change. They argue that if education were more accessible and of better quality, then children would not be in the labour force. By keeping all children in school until they reach an acceptable age for work, education will, it is claimed, bring an end to child labour—since when in school, children cannot work. So, the lack of well-distributed, free educational facilities is cited as a major cause of child labour.

Not all work is harmful to children, however. Some work activities develop practical knowledge and skills; and work also reinforces many children's sense of self-esteem and unity with their families. The distinction made between activities that are harmless or even beneficial and work that is degrading, exploitative or perilous is a useful one from a policy perspective because it makes it possible to define priorities in the battle against child labour. In fact, international organizations such as the United Nations Children's Fund (UNICEF) and the International Labour Organisation (ILO) increasingly use the term 'child labour' to refer solely to the exploitative and hazardous work children do, reserving the term 'work' for activities that are at the very least harmless and may even promote health and welfare. The aim of policy should be to bring an immediate end to the 'labour' of young children—giving them the opportunity to enter school at an appropriate age and to continue at least until completing the primary cycle—and to prohibit dangerous or servile labour in all age groups. On the other hand, work that is not dangerous or exploitative and work by young adolescents who have successfully completed primary education is of less concern in the short term.

What is child labour? Work that involves one or more of the following:

- absence or inadequacy of remuneration in money or kind
- long hours and few or no periods of rest or holidays
- unhealthy working conditions
- abusive treatment by the employer
- physically dangerous work
- insufficient access to health care or education
- lack of representation and legal protection

In so far as education may play a part in the eradication of child labour, then education expansion should be greatly encouraged. Quite apart from this, of course, education also has intrinsic value. The key message of the 1990 World Conference on Education for All at Jomtien, Thailand, was that investing in children's education is the single most effective way of achieving both accountable democratic governance and socio-economic development. Education produces the trained personnel needed to manage the economy; advances knowledge in pure and applied fields; and facilitates the better use of energy, the environment and human resources. At the individual level, it provides better understanding of and access to the economic and social options available to society.

Educational attainment is also commonly associated with higher wages as well as with higher standards of living. More importantly still, women with more education are better able to care for their children, as women's education has the effect of reducing fertility as well as infant and child mortality. Finally, there is the proposition that universal primary education that is both relevant and appropriate will reduce the intensity and hours of child work, therefore keeping children out of many of the most hazardous forms of labour. These are considerable benefits indeed.

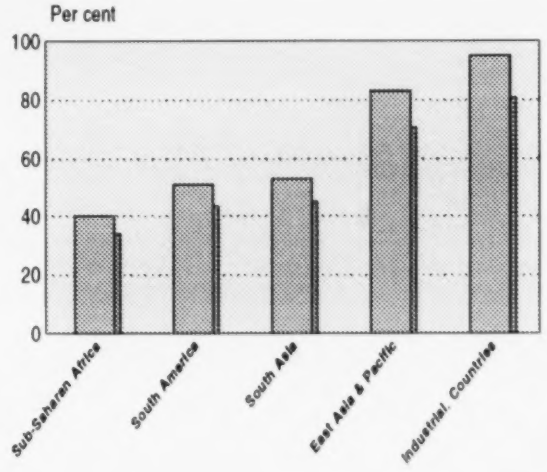
In many respects, things have been going well in recent years, with an unprecedented mobilization for primary education at the national, regional and global levels. The Jomtien conference was a landmark, bringing together international agencies, national governments, non-governmental organizations (NGOs), professional bodies and the private sector in support of universal primary education, normally defined as a minimum of five years of schooling. A commitment was made to make primary schools more available and efficient and to use all means—formal, non-formal and informal—to reach the most disadvantaged children, especially girls. The 1989 United Nations Convention on the Rights of the Child and the Declaration made at the 1990 World Summit for Children have provided additional political support for primary education globally. Governments are now pledged to the goal of 80 per cent enrolment of primary school-age children by the year 2000.

Access to education in developing countries has improved remarkably. Increases in enrolment at the primary and secondary levels are particularly significant for child labour. According to a 1993 report by the United Nations Development Programme (UNDP), primary school enrolment in developing countries has grown in the past two decades from less than 70 per cent to well over 80 per cent.[2] Moreover, enrolment at the secondary level has almost doubled in the same period, from less than 25 to 40 per cent.

These broad statistics disguise serious and persistent problems with schooling, however, since enrolment offers no guarantee that children will remain in school, or benefit from the education they do receive. Also, the most recent information on education globally suggests that although enrolment in primary education is increasing in absolute terms, it is declining relative to the total number of primary school-age children. In practice, the formal education system is in crisis globally. UNICEF reports in *The Progress of Nations* that only

about 50 per cent of the children in South America and South Asia and a mere 40 per cent in sub-Saharan Africa reach grade five (Figure 1). Some 100 million children—mostly girls—of primary school age in the developing world today have never been to school; another 100 million, at the very least, drop out before reaching the final primary grade.[3] Thus, a full 200 million receive no education beyond the age of 12. Nearly one billion adults worldwide, or just over one third of the total adult population, are still illiterate. The problem is particularly serious in the Asian region—where 70 per cent of the world's illiterate population live—and in sub-Saharan Africa. Even in the wealthier Latin American and Caribbean region, where a full 99 per cent of children start school, about 20 per cent start late, 40 per cent repeat the first year and 30 per cent repeat the second.[4]

Figure 1: Children Reaching Grade 5 of Primary Education
(Selected Regions, 1987-1992, percentage)



Source: UNICEF 1994

Primary education is a basic human need and increasingly recognized as a fundamental human right; it is, moreover, a key factor in national development and, as such, should be the central plank of all good social policy. It could also be the most important measure for reducing child labour. However, the relationship between school and work is complex, and it is not at all certain how, or even whether, the achievement of education for all will eliminate child labour. Drawing on case material from several countries, this paper explores the connections between education and work, with a view to highlighting priority concerns that need to be addressed in education policy if children's involvement in exploitative or dangerous activities is to cease.

That said, a note of caution should be added. On the whole, with a few clear exceptions, the research on both education and child labour and child work is extremely weak in certain important respects, making it difficult to use in the development of policy guidelines. Many authors fail to report basic facts, such as the age or sex of the children considered. Although many studies indicate differences in occupation, workload and education access among different categories of children, few identify or measure precise impacts or outcomes of either education or work. This vagueness makes it impossible to gauge whether a particular productive activity can be defined either as labour or work, or indeed whether in any particular instance a child might be better off working or attending school. In the main, the research on education yields far more indicators of both process and impact than does the research on child work. Yet, few of these education indicators relate to children's work, a somewhat surprising oversight considering the way work interacts with and impinges on education in so many settings. Finally, given the intricacy in the relationship between education and child work, the tendency of research on education and research on child work to be segregated is another major flaw.

II. SCHOOLING AS A DETERRENT TO CHILD LABOUR

Beginning in Europe during the period of industrialization, legislation has consistently played a central part in the battle to combat child labour and encourage children to attend school. Compulsion, in the form of laws backed by legal sanction, was long seen as the most effective way of dealing with the problem of child exploitation and low school attendance. Early labour laws in Europe, for example, increasingly constrained and regulated children's involvement in work. There is evidence that this legal approach had some success. Thus, Heywood argues that child labour legislation in late 19th-century France induced families to invest time in primary education.[5] In the Vosges, employers were required by law to hire only children with a certificate of compulsory school completion. This provided a major incentive for children to be educated and to sit for public exams, which increased their standing in the eyes of employers. It is indeed encouraging to think that compulsion might have a place in the achievement of social change, because legal reform is comparatively straightforward—far more so than voluntary behavioural and attitudinal change.

However, whether labour law and correlated worksite inspection have more impact on the problem of child labour than education law is another matter. Labour laws have been found wanting in many developing country contexts as they are unenforceable precisely in those occupations and sectors in which children are most likely to be concentrated. On the other hand, for a variety of reasons laws on compulsory education may be easier to enforce than labour laws. In many communities, education is highly regarded, even if economic and social constraints limit attendance. Local education officials know who is attending school and who not and can influence parents' decisions on the matter. Making primary education compulsory leads to the registration of all children in the community and instills a commitment to both universal enrolment and retention of school-age children within schools. To assist poor children to attend, additional measures can be introduced, such as free tuition and textbooks, the provision of midday meals, and social-work support for parents. To facilitate the schooling of girls in particular, separate classes or even separate schools may be established.

> "The idea of making education universal and compulsory up to a certain level is an old one; in Europe, it was being advocated by certain religious and intellectual leaders in the 16th century, and in North America some settlements instituted it in the 17th century. The idea of a broadly educated citizenry reflected the gradual emergence of democratic ideas and values in the industrialized countries, and came to fruition in part through social reforms—including child labour reform—that occurred during the period of industrialization. In the developing countries, the establishment of universal compulsory education is more recent and less complete, and often responds to somewhat different social ideas and objectives. Nor is it everywhere considered a priority."
>
> Source: Bequele and Myers, forthcoming.

Many believe that compulsory education has a decisive role to play in the eradication of child labour. Certainly the countries in East Asia that are now experiencing dramatic economic growth and have practically eliminated child labour—principally Japan, Hong Kong, the Republic of Korea and Singapore—are all countries with extremely high rates of primary school attendance. Weiner, however, has argued that low per capita income is no excuse for low levels of participation in education or even for widespread child labour.[6] Citing Botswana, Gambia, Rwanda and Zambia as examples, he shows that many poor countries with sufficient political will have expanded

access to education and achieved impressive increases in literacy. This, he says, is a precursor to the elimination of child labour, since compulsory, universal primary education is the most effective deterrent to children's work.

Although Weiner has further stimulated the debate on the relationship between education and labour, placing the issue most firmly in the public policy arena, it is not at all certain that his thesis that compulsory education brings an end to child labour is borne out by fact. In some cases, it is clear that children would not attend school even if they were required to and did not need to work. There are many reasons why children do not go to school, and compulsion alone cannot remove all the obstacles to attendance. Policy makers concerned to attract more children into education and away from labour need first to ask themselves why children work instead of attending school.

"Education has a dual function in the elimination of child labour. In the first place, where education is compulsory and where attendance and enrolment can be effectively enforced, children are no longer available for work, at least during school hours. Indeed, in some cases, the existence of an accessible and free alternative to work can be sufficient to dissuade children from working....

In the second place, it is largely through the national education system that children are given opportunities to acquire and develop the ability to learn skills that will enable them to compete in the labour market. Without these skills there is a great risk that adults will remain locked in the dead-end occupations that they have taken up during childhood."

Source: Bequele and Jankanish 1991.

For many parents the decision to keep children out of school is connected with problems such as the poor condition of school buildings and facilities, the irrelevance of academic curricula for their everyday lives and the inadequacy of teaching. This indicates that incentives to attend—including financial inducements and improvements in the quality and applicability of education—may have greater effect than compulsion. Besides, even if school were compulsory and all children were to attend, school attendance would not necessarily release them from their work obligations.

While schooling may obstruct full-time labour, it is impossible to assert with confidence that increased coverage of primary education signifies a decline in part-time work. Children work even where school attendance is close to 100 per cent. Also, the existence of

In a UNESCO publication, the key variables affecting scholastic performance are identified as:

- **External material factors:** nutrition, housing, socio-economic condition, family composition, and so forth
- **External cultural factors:** parental levels of education, attitudes and values towards education, linguistic patterns, contact with the mass media, parental participation in school activities
- **Internal material factors:** physical factors such as educational resources and assets; and organizational factors such as promotion procedures, provision of pre-school programmes, among others
- **Internal cultural factors**: including teachers' attitudes, training and experience; and educational content and methods

Source: Tedesco 1990.

double—and even treble—shifts in some schools gives children time to work, and this has caused some observers to question whether full-time education is what is needed rather than just wider coverage with part-time schooling. Many studies of educational achievement, however, indicate that performance correlates closely with the time allocated to schooling. As indicated in the next section, excessively short and evening shifts, especially for primary school children, are unlikely to produce desired educational outcomes.

Education alone cannot resolve the complex and widespread problem of child labour, which has its origin not so much in educational deprivation as in social and economic structures that routinely use children's time to help bolster the economies of family and informal enterprise. Child labour will persist until there is greater overall affluence in developing countries, firmer social safety nets and a far better distribution of income and resources generally, both at the national and international levels.

III. COMBINING SCHOOL AND WORK

The School Participation of Working Children

The core assumption of Weiner's thesis is that education is effective against child labour because children made to attend school will not be able to work, simply for lack of time. But the fact that a large proportion of children throughout the world effectively combine school and work demonstrates how the incompatibility of the two activities has been greatly exaggerated in popular assumptions.

Children who do full-time unpaid work within the home are normally registered in national census data and most other statistics as 'inactive', and children who work and attend school are registered as 'pupils'—even if their attendance is only sporadic. This impreciseness diminishes official recognition of the importance of child work. Indeed, because of the informality of their work, many of the activities undertaken by children are not even defined by society as 'work'. In Lima, Peru, children engaged in street work are said to be doing *cachuelos* or odd-jobs, useful more for keeping them busy and out of trouble than for earning income as such.[7] Pupils in primary schools in Bogotá undertake domestic work in the home as well as engaging directly in production, and yet neither they nor their families think this contributes economic value, seeing it more as a means of pre-labour training.[8] The clandestine nature of much child work may also influence the way children's activities are interpreted and reported, lessening its importance in popular perception.

Most of the research on child labour or child work provides some indications of school participation, even if just by reporting whether or not child workers attend or what grades they have reached. Studies that examine in detail the educational, health or welfare implications of combining school and work are less frequent. Surveys reveal that working children in Latin America have particularly high levels of access to education when compared with their counterparts in other parts of the developing world. Figures for 12- to 14-year-old child workers drawn from a survey conducted in seven major cities in Colombia indicated almost 100 per cent literacy;[9] some respondents had even attended secondary school. It is not simply that these working children have experienced a significant amount of schooling at some point in their lives, because it has also been found that a high proportion work and attend school at the same time. In a comparative review of research on working children in the region, Myers comments that the facility many children have for combining work and

education is extraordinary.[10] He notes, for example, that a full three quarters of respondents in surveys in Asunción, Paraguay, in Lima and in various cities in Brazil claimed to be attending school, although his sources do not reveal the intensity of the children's school participation. Researchers should perhaps make an effort to be more precise in this area, since school attendance can be highly variable and there is evidence that intermittent attendance is of little educational value.

Figures for Colombia for 1973 and 1984, and especially for Bogotá, show a decline in labour force participation for children and adolescents 10-19 years of age, with lower rates of participation among younger age groups and among girls. At the same time, however, there appears to have been an absolute increase in school pupils who work. This latter trend is attributed by Colombian researchers Ayala and Salazar to a combination of factors, including the increase in school enrolment, the expansion of work opportunities for women (forcing children to undertake more domestic chores) and a deterioration in living conditions.

Sources: Ayala 1982 and Salazar 1990.

While a large proportion of working children attend school, if only infrequently, an equally significant percentage of school pupils also work—and this may be a fact more important still from the perspective of educational planners who perceive schooling as a leading instrument of labour reform. Himes, Colbert and Garcia-Mendez have drawn attention to the far higher social rates of return to primary education than to higher education that prevail in the middle-income countries of Latin America and the Caribbean. Indeed, the authors suggest that the rates of return to primary education are far higher than for any other likely alternative uses of the time of children aged 6 to 14.[11] This may be true for the majority of children, but less so for those from urban slums or impoverished rural communities, because for them education represents considerable opportunity costs. Wide disparities in income and access to services explain why in Latin America so many children of primary school age continue to work and in so doing jeopardize their education. A study of 379,000 children between the ages of 7 and 14 years in public and private primary schools in Bogotá found that 87 per cent worked, including those engaged in domestic activities.[12] Especially high rates of work were recorded for boys, for children in the older age groups and for children enrolled in public schools. Of the total, a full 41 per cent were doing paid work outside the home as well as domestic work within.

With the rapid urbanization and expansion of the market economy in developing countries since the 1950s, the opportunities for remunerated child work have grown dramatically. It is probable in the future that the bulk of child workers will be urban and not rural and that paid work will become increasingly significant. Considering that one of the main reasons families migrate from rural to urban areas is the desire to have their children educated and that urban children generally have better access than rural children to education, urban work correlates more closely with schooling than does rural. Thus, urbanization is a positive force in the expansion of both primary education and paid work.

Juxtaposing work and school, however, is extremely difficult for children, demanding considerable time and energy. An 84 per cent attendance rate among working children aged 6-14 years in a survey in Lima by Alarcon means that over two thirds of the children who claim to work more than nine hours a day also have to be studying, indicating a major personal investment.[13] Surprisingly, however, only one third of the children in this sample thought that work had a detrimental effect on their education, even though a work day as long as nine hours must surely undermine school performance to a significant degree.

The Role of School Shifts

Many countries have adopted a part-time education system in which children attend daily shifts either in the morning or afternoon, or in some cases in the evening. This system has the advantage of allowing the school participation of working children because it is more flexible than full-time education and requires fewer contact hours. However, it also has some drawbacks, especially at the primary school level, not least being the possibility that part-time school attendance may actually encourage and facilitate child work. In addition, there is the likelihood that part-time education will affect the quality of pupils' educational experience.

Children forced to attend the afternoon and evening shifts seem to be particularly disadvantaged. In Lima, where schooling is organized into three shifts, evening classes correlate more closely with work than the day-time shifts and have a higher desertion rate as well.[14] The lowest incidence of work and the highest standards of educational achievement occur among pupils attending school in the morning. Pupils who return home late after school may be too tired to do their homework properly. In Brazil, pupils from the evening shift complained of fatigue, which was not surprising considering that their day generally began at 6 a.m. and ended at midnight.[15]

Factors in Children's Work Facilitating Education

If part-time and flexible school schedules favour the education participation of working children, then so do the timing and nature of children's work in itself. Anthropological research conducted in Kerala, India, by Nieuwenhuys confirms that much of the work undertaken by children is highly suited to school attendance. One of the reasons appears to be the fragmentary nature of the chores and services they perform, which do no compete seriously with the regular school day of 10 a.m. to 4 p.m. On the other hand, attempts in Kerala to adapt the school year to seasonal demand for agricultural labour have resulted in a questionably short school year. In some districts, schools may be closed for as many as 200 days in the year.

Another hypothesis—as yet tested infrequently by research—is that the type of occupation or labour relations has greater influence on whether or not children attend school than does the frequency or intensity of work. Not all occupations allow for school attendance. Ennew's school sample in Lima, for instance, showed that some occupations were more readily combined with school than others—mobile street trades such as car washing having the lowest correlation with study.[16] Home-based workers and live-in domestic, shop and restaurant workers had higher attendance rates than children working at market stalls or building sites. Factory workers and newspaper vendors found it especially hard to attend school. Girls are concentrated in many of the occupations in Lima showing a higher correlation with schooling, suggesting that working girls place a higher value on education than do working boys. In Lagos, Nigeria, as in Lima, street work was found to make education difficult because—due to its low income yields—it is full-time.[17] Research by White and Tjandraningsih in Indonesia indicated that most children working for wages or as apprentices were primary school deserters or school leavers who had not continued to the secondary level. Unpaid workers in family enterprises, on the other hand, were much more likely than the waged to remain in school, working part-time.[18] This pattern also occurs in Malaysia.[19]

Some studies reveal a link between occupation and school performance. Children in primary and secondary schools in Lagos who hawked after school had significantly lower

performance levels than did children who assisted their parents with household chores, although they showed more leadership.[20] Among working children attending school in Cochabamba, Bolivia, street sellers and then car washers were the two groups in the lowest grades, while helpers in workshops tended to do much better than the rest.[21] Of the working children who were not attending school, the majority were *changadores* (porters), closely followed by street vendors and shoe-shines. Children involved in illegal activities were also more than likely to be outside the school system. This suggested to the authors that school has a positive influence on moral development.

> For many children the decision whether to attend school or go to work is made daily and may be very casual, influenced often by a range of extraneous factors:
>
> "I do not enjoy selling. If I didn't have to stand here working, I would like to go to school or go home and study. I work because my father gets drunk, especially on All Saints Day....When my father gets drunk, I sell all day and miss school. Today I'm not there because I'm selling."
>
> Source: Bunster and Chaney 1985, p. 196.

Because the place of residence, work and school may be very distant from one another, many school-going workers spend several hours a day travelling. This may lead to late arrival at classes, low concentration, low attendance and, eventually, desertion. The problem of transportation becomes especially critical for children engaged in more than one occupation. Thus, a child in Delhi may spend three hours a day in school, three and a half hours picking rags, four hours sorting and, if she is a girl, another three to four hours doing housework.[22] When these work and school commitments also entail travel, the chances are that the child will eventually give up schooling, considered as the most dispensable of the various activities—at least in the short-term.

Most societies award greater freedom and mobility to boys than to girls, facilitating their education and economic participation. In Kerala, for example, where schools at the upper primary level are scarce, it is difficult for Muslim girls to continue their schooling because they may not be permitted to leave their villages.

Finally, parental occupation may influence school attendance positively as well as negatively. For instance, in her study in Lima, Ennew notes how perceived differences in the quality of education available in middle-class areas as opposed to poorer ones prompt women working as domestics to enrol their children near their place of employment rather than in their own communities.[23] Many of these children work after school, close to their mother's workplace—hence the unexpectedly high incidence of child work in schools in middle-class areas revealed in children's essays about their out-of-school activities.

Variations in Workload between Pupils and Out-of-school Children

To acknowledge the work of school-going children is not to say that their work burdens are the same as out-of-school children. That said, few surveys of either working or school children use a control group, making comparison between the two populations impossible in most cases. One exception is a survey conducted by Kanbarghi and Kulkarni in India, which recorded very different workloads for the two groups—the work contribution for both increasing with age.[24] For boys not attending school, the total time devoted to all work (household and productive) increased from less than four hours among 5- to 7-year-olds to a little more than six hours among 12- to 14-year-olds. On the other hand, the contribution

of male schoolchildren in the same age groups increased from just over one hour to about two and one half hours. Girls tended to contribute more than boys in all these categories; by the age of 12-14 years, they were working about eight hours a day. Recent research carried out by the NGO ActionAid in rural Nepal produced similar results. Its major finding was that while schoolchildren (mostly boys) had few work responsibilities and assisted parents only in light tasks, out-of-school children worked extremely hard—especially girls over 12 years of age, some being engaged full-time in waged labour.[25]

The variation in workloads between school-going and non-school-going children highlights a pivotal question for policy: education may not deter children from working part time, but how does it affect full-time labour? Certainly, it would be wrong to dismiss mass education as an instrument of child labour reform just because it is unlikely to stop part-time work. Schooling may in fact greatly reduce the hours and intensity of work. The ActionAid study in Nepal and research conducted by White and Tjandraningsih in Indonesia suggest that children engaged in full-time labour are seldom able to sustain their schooling, indicating that the expansion of education might at least lead to a reduction in the hours of work undertaken by children.[26] Moreover, to the extent that children involved in the most dangerous or coercive forms of labour are unlikely to be at school, universal primary education may benefit these most disadvantaged groups. Education may also impart important information and values effective in building children's self-confidence, thus helping them protect themselves against exploitation.

It could therefore be argued that, even if the spread of education has frequently not stopped children from working part time, if it can help eliminate full-time child labour, stop child bondage and remove children from prostitution and other hazardous activities—goals that are a greater priority than ending part-time casual work—, then it is a formidable instrument of change. However, the question remains as to how the goal of universal primary education may best be achieved, since compulsion is probably less effective than some observers have predicted and may even have a number of unfortunate consequences for child and family welfare. More important for genuine education reform than compulsion is the commitment by governments to increase facilities, relax admission criteria, provide financial incentives, improve quality and introduce flexibility in scheduling. Also, it still remains to be established how education policy can bring an end to the most hazardous forms of labour, since these are the ones most difficult to identify and eliminate and the ones most remote from public-sector vigilance. Hazardous child labour is protected by powerful vested interests and is notoriously difficult to single out and eliminate. Education alone cannot solve this issue: it will no doubt take the combined effort of a number of agencies and multi-sectoral interventions to remove children from these kinds of activities.

IV. ECONOMIC CONSTRAINTS AGAINST SCHOOL PARTICIPATION

The Productive Contribution of Children

The most frequent explanation for the persistence of child labour in developing countries today, and a common explanation for low levels of participation in education, is that children are forced to work because of family poverty. Indeed, most research on child labour is based on the assumption that it is caused by poverty; other social or cultural determinants tend to be disregarded. This belies the finding that child work persists even in comparatively wealthy

communities in industrialized countries. Nonetheless, there is considerable evidence throughout the world linking child labour, non-enrolment and school desertion with poverty. Thus, poverty increases the relative value of children's work for the family, raising the opportunity costs of education.

Among the poor, the income—however meagre—provided by children and the assistance they give with sibling care and household chores are important for the survival of the domestic group. A high proportion of families do not consider schooling a viable option for their children, and many others believe they have no choice but to take their children out of school early and make them work. In a study by the National Council of Educational Research and Training in New Delhi, economic factors emerged as most significant in educational failure, with 65 per cent of children being withdrawn from school to assist the family with their work.[27]

Family dependence on children's work is evidenced by many researchers, although few pay much attention to the implications of this phenomenon from an educational perspective. In general, the information on children's monetary contribution to the domestic economy is more consistent than information about the value of their unpaid work, largely because the latter is difficult to assess. Cain and White have documented the substantial economic benefits from child work in Bangladeshi and Indonesian villages respectively, as did Arnold and colleagues in the 'value of children' study conducted in 1975.[28] According to 1986 data, 40 per cent of children in Brazil receive no wage, 30 per cent gain barely half the legal minimum, and 27 per cent earn at most the minimum wage, with the proportions improving only slightly for adolescents. Nonetheless, one third of families in one study were totally or partially dependent on children's earnings.[29] In a sample of households in Bangalore, India, children contributed 19 per cent of family income. In Egypt, boys employed in factories and workshops were found to contribute one fourth of family income.[30] In Nepal, 23 per cent of the children in a sample of tea estate workers claimed to be the sole earners in their family; overall, children were found to contribute about 12 per cent of total tea production.[31]

In practice, children's monetary contribution is rarely as great as the value of the unpaid work they do. Several authors stress that children who do unpaid work in the home are fulfilling a vital function in releasing women from their household responsibilities, enabling them to take up paid work elsewhere.[32] Unfortunately, though, because of the difficulty of assessing the value of unpaid work, there is a tendency in much research to underestimate children's total labour input in productive activities. Some researchers have tried to obtain a more complete picture of children's work contribution by using methods such as time-allocation budgets.[33] This approach has its drawbacks, of course, because children often work intermittently and it is difficult to record variations in work intensity accurately.

Children's Workloads

Because their earnings are low and their occupations labour-intensive, children tend to work long hours, leaving them little time or energy for schooling. In rural households in the Philippines, observational time-budget data show that children spend twice as much time as mothers, and 80 per cent of the time spent by fathers, in economic production. They also spend 50 per cent of the time spent by mothers and more than twice the time spent by fathers working within the home.[34] In general, the total time invested in work and the proportional distribution of children's time between paid and unpaid work vary with sex and

age: girls tend to work more than boys; and children over the age of 12 of both sexes, more than younger children. Girls in many cultures and children under 12 years of age practically everywhere undertake far more unpaid work than paid. Conversely, boys in certain cultures and older children everywhere do more paid work. In Nepal, one study found that girls work as long as adult men.[35] Interestingly, recent research in the Himalayas suggests a correlation among environmental degradation, increases in children's work burden and diminished school participation—a trend affecting girls more than boys.[36] These variations in workloads have considerable importance for education participation and are discussed in greater detail later.

Poverty is not just a factor in children's workloads, but also reduces the ability of children and families to negotiate fair terms of work. Thus, in areas of widespread poverty and adult unemployment or underemployment, employers are able to dictate the terms and conditions of labour, keeping children out of school and at work. This point is made forcefully by Burra, who argues that, in the parts of India where child labour is concentrated, employers block children's participation in school, even when education is highly rated by their families.[37] In the carpet belt of Mirzapur-Bhadohi, in Varanasi, for example, parents are bribed by middlemen with small loans and an assurance that their children will learn a skill in the carpet factories. Inducements are also offered in Sivakasi match-making factories. Similarly, *muro-ami* fishing employers in Cebu, in the Philippines, run local shops, buses and other businesses, extending to local families loans and gifts which have to be repaid in labour. Bound up in complex patron-client ties, boys from indebted families are forced to sign on repeatedly for hazardous employment as divers on the *muro-ami* boats. On-board expenses—duly inflated by the ship's captain—are deducted from their wages, perpetuating the cycle of debt.

V. SOCIAL CAUSES IN CHILD WORK AND LOW SCHOOL PARTICIPATION

Social Change and Economic Aspirations

In practice, the economic explanation of children working rather than attending school is beginning to look more and more questionable. Some of the more recent research has examined the causes of child work without making any assumptions. The indications are that poverty is by no means the sole determinant of child work and school drop-out: not all poor families send their children to work; nor, even, do all of the poorest families. On the other hand, children continue to work in some of the wealthiest countries of the world, even while attending school. A possible explanation for the persistence of work in wealthy areas, and one all too often neglected by policy specialists, is that children's work facilitates personal and family access to luxuries. In an increasingly urbanized world in which expensive material symbols confer social status, children's earnings can be very important. Of course, it could be argued that school is also a status symbol and that education offers better economic rewards than child work does. Moreover, in societies where education is highly regarded, children who do not attend are viewed with suspicion by the authorities and, in the case of street workers particularly, may be perceived as delinquents or vagrants, not workers. But, the benefits from education are deferred and, in a world of retreating employment for adults, are not in any case guaranteed.

Britain's Low Pay Unit has argued—on the basis of surveys carried out in Luton, London and Bedford—that child employment is more prevalent during periods of rapid economic expansion than in times of entrenched poverty.[38] Similarly, when children and adolescents in Russia were asked recently why they were working, they reported interest in a wide range of consumer items and made little mention of economic necessity.[39] Recurrent expenditures in all age groups were for the cinema or disco, sweets and drinks, cosmetics (for girls), cigarettes, and alcohol and courting (for boys). Mansurov, author of the investigation, explained the Russian trend as being linked to the development of the market economy, which has brought with it a desire among young people to possess the same consumer goods as those enjoyed in the West.

Even in some of the poorest parts of the world, the material, social or personal aspirations of the not-so-poor rather than the destitution of the poorest may be drawing large numbers of children into work.[40] In India, for example, a survey by Patil in Bangalore revealed that one third of working children had parents who were salaried.[41] In Bombay, over a quarter of the children in one sample worked not because of poverty, but because they had nothing better to do.[42] In the Philippines, a survey of young scavengers on the Smokey Mountain rubbish dump in Manila found that only 20 per cent of the children come from families of the 'hard core' poor.[43] Despite the hazards of scavenging, many of these children are lured into work by the possibility of one day becoming rich by discovering a valuable object in the refuse. The children also happen to like scavenging because of the friendships they make with other children and the fun they have playing 'chicken' with the bulldozers.

In communities with limited access to skilled adult employment, children may be kept out of school and required to work simply because adult household members, usually men, choose to be unemployed rather than to take jobs they consider demeaning. UNICEF and ILO have established that in the Philippines, Thailand and a number of other countries, parents may remain idle precisely because there is a highly lucrative market for children's labour—even when this is in as hazardous an occupation as prostitution.[44]

The Role of Work in the Transition to Adulthood

There are other incentives for children to enter the workforce young. Work is an important transition rite, through which children and adolescents become social adults. The significance of social transitions in affirming the individual's membership in an age grade, clan or community in traditional societies is stressed by anthropologists especially.[45] Even in more complex urbanized societies where formal transition rites may be absent, however, children are drawn into work because of its association with independence and with adult roles, rights and responsibilities. The possibility of earning money attracts many urban children particularly away from unpaid work within the family into waged employment outside the home.[46] Bekombo makes the point that child work also confirms adult gender roles.[47]

Research by Ennew and Young in Jamaica[48] and by several authors in Brazil compares the social benefits obtained by young people from their work to their gains from school participation. In Jamaica, young people who work regard themselves as having entered adulthood and are resistant to the traditional school system, which assigns them an inferior position in society, undermining their self-esteem. Likewise, Myers remarks on the significance of responses of young people surveyed in Brazil to the questionnaire entry—"Name three things that you do not do, but would like to do".[49] Of the 2,281 responses generated (an average of only two per respondent), 33 per cent were work or career aspirations, and only 8 per cent had to do with further education.

A study in Brazil by Gouveia and cross-cultural research coordinated by the UNICEF International Child Development Centre (ICDC) in Florence both note how in many households the position of children changes after they start contributing to household expenses. Child breadwinners have fewer conflicts with their parents and are less frequently punished than their non-working siblings.[50] Gouveia found Brazilian youngsters to be proud of working. By bringing home wages, they obtain sufficient status within the family to resist harsh disciplining by their parents. In an interview, one 11-year-old boy who had recently started working commented: "They beat me the same, but now I swear at them".[51] Work also increases young people's status among peers. In Brazil, the very fact that they go out to work, frequently outside of their community, makes working children feel freer from family supervision than schoolchildren do. Also, importantly, work is perceived by adults and children alike as a safer and morally superior option than idleness on the streets, which is linked in popular perception to gang delinquency and drug addiction.

The ICDC study found varying attitudes towards work among children aged 9 to 10 years in different countries.[52] Filipino children, more often than others, viewed their street work (frequently combined with schooling) positively, as did their parents. Attitudes among Brazilian street workers were similarly favourable. Reactions to work among children engaged mainly in ragpicking and domestic work in India and among child workers in Kenya, however, were less approving. Many felt they had been compelled to work by their parents and would have preferred to have been at school. Quite apart from the probable differences in the social legitimacy of child work from one country to another, one possible implication of these findings is that some child occupations award higher status to the worker than others, a consideration that might also influence decisions about school attendance. It could also be that parents exert less influence over occupational decisions made by street children in Brazil and the Philippines and more on those made by child workers in India and Kenya.

In urban areas especially, the contrast between the social attributes attached to school or work can create a serious personal conflict for children. Urban children are often aware that they need to go to school to obtain the best jobs in adulthood; yet they resent the immediate loss of status this entails and recognize that even with schooling full employment is not automatic. Szanton Blanc and colleagues in the ICDC study conclude that, whether attending school or not, during middle childhood (6-12 years of age) children acquire a stronger sense of self by contributing to the family's well-being, especially in a collaborative family atmosphere. Adolescents, however, may become resentful of the loss of opportunity that working rather than attending school entails.

VI. FAMILY CAUSES OF CHILD WORK AND LOW SCHOOL PARTICIPATION

Lone-parenthood and Female Management of Households

Some observers suggest that schooling and child work are closely linked to the structure and composition of the family. Phenomena such as lone-parenthood and female-headed or female-managed households are identified as indicators of family disintegration, child neglect and abandonment, and child exploitation.[53] Others maintain that, if there is a correlation between family or household composition and child work, it is not a question of morality but rather depends on the adverse economic circumstances of one-parent or female-managed

households. This argument is made by Tienda in a study in Peru, for example.[54] Similarly, Krishnakumar found that in Bangalore a significant proportion of households where children work—unlike those with school-going children—are headed by women (widows), suggesting that low household income increases dependence on child labour.[55] Studies conducted in Egypt by Azer and colleagues and in Peru by Oort de Sanchez, Ennew and ILO, however, found no such correlation, although Ennew established a higher-than-average incidence of child work among children living with step-parents or related adults other than their parents.[56]

Life is difficult for the single parent, especially the single mother, not least because of prejudice and social stigma. The sheer physical and emotional fatigue of raising children alone, and trying to be the main source of both affection and authority at the same time, drains morale. Lone adolescent mothers are more vulnerable than most because early child-bearing can cause health complications, poverty and social rejection. Compared with males, female heads of household are disadvantaged in many ways:[57] they are more likely to head a household by necessity rather than by choice; they generally marry much younger, and so are less educated and less experienced in the ways of the world; they have far more difficulty maintaining their families because they have less access to the market economy; when they do earn, their wages are generally far lower; and because of discriminatory social norms, they find it more difficult to remarry. Throughout the world, households led by women are among the poorest; in many areas, they are the poorest of the poor.

Despite the evidence of the extreme pressures on lone-parent households headed by women, there is insufficient information to state categorically that children from such households are disproportionately involved in work. Globally, lone-parent, female-headed or female-managed families and households are so common that it is not surprising that their incidence is high in samples of working children: only by comparing samples of working children with non-working controls is it possible to argue that there is a significant correlation. Between one quarter and one third of all households in the world are headed by a single parent, and 9 out of 10 lone parents are women.[58] But their economic circumstances and their use of child work are widely variable. Female-headed households are generally far more common in Latin America, Africa and the Caribbean than in Asia and the Pacific, where widows, divorcees and lone women are more likely to be absorbed into extended family households. By contrast, in Islamic societies, where the system of *purdah* is predicated on women's dependence on men and separation from the world of work, widowhood and wife abandonment can result in extreme destitution for women and children if there are no relatives to take them in.

Family Size

Family size is another variable that may correlate with child work—possibly linked to variations in per capita income. Research carried out in Nepal and Java [59] established that children from large families were more likely to work than those from small families. Similarly, a study in Santiago, Chile, found that working students came from larger families than did non-working students, whereas family organization, another factor considered potentially important, did not vary significantly between the two groups.[60] George determined that household size and income had a significant effect on the hours of paid work done by children in Malaysia, although her results were quite unexpected.[61] Among urban children, higher household income and larger household size correlated with longer hours of paid work; among rural children, instead, those working the longest were

distributed among both low- and high-income households. For unpaid work, there was no particular correlation with household income or size. For rural children, the involvement of those under-15 years of age in productive work was less likely in larger households.

Children within the same family may be treated differently according to their birth order, and this influences work and school participation rates. In rural Botswana, custom dictates that the eldest son will eventually inherit the family herd, and so he is kept home to tend it while his siblings go to school.[62] According to Kanbarghi and Kulkarni, older children in Karnataka, India, are frequently withdrawn from school so that they can look after, or work to pay for the schooling of, a younger sibling. Their findings suggest that the presence of younger siblings in the house depresses school attendance, whereas the presence of grandparents increases it, a measure of the important part the latter play in child care.[63] When an adult falls ill or dies, an older child may have to take his or her place in the labour market.[64]

VII. DISCREPANCIES IN EDUCATION BETWEEN RURAL AND URBAN AREAS

The Relative Value of Child Work and Education

Rural children are more likely than urban children to work and less likely to attend school. There are a variety of reasons why child work and educational deprivation are more common in rural than urban areas. Indifference towards schooling is one explanation of rural educational deprivation, but this is greatly exacerbated by a shortage of teachers and schools in rural communities and a lack of commitment to rural education on the part of governments. Not only are schools fewer in rural areas, they are also likely to be older and more dilapidated than urban facilities and to offer only a few primary grades. Teaching is often of lower quality, as better-qualified staff prefer to live and work in urban areas. Also, the clash between the rural work calendar and school schedules is especially problematic in many cases. Even rural children who do go to school must generally stop earlier. Whatever the reason, low uptake of education in rural areas presents a major challenge from a policy perspective.

Children in rural areas tend more frequently to work out of economic necessity and are required to work younger and for longer hours than they are in urban communities. MacPherson has calculated the proportions of children in absolute poverty for groups of countries distinguished by their under-five mortality rate (U5MR).[65] From his assessment it is evident that, despite rapid and extensive urbanization in many parts of the world, over 70 per cent of all children living in absolute poverty in developing countries come from rural areas. In the poorest countries (the highest-U5MR group), 88 per cent of the children in absolute poverty live in the countryside.

Child work is an unremarkable, everyday activity in many rural communities in the developing world today and is frequently not thought by parents or children to conflict either with children's well-being or with their schooling. On the contrary, parents often believe that early entry into work is beneficial for children. It is argued that, through their work, children learn essential vocational skills and become adept at financial management and negotiating with adults. Work may also enable children to make contacts that will help them to obtain employment later in life, an important advantage in a highly competitive labour market.

Bekombo notes how in Africa child work in the traditional rural setting is akin to an education system in itself.[66] Indeed, in several parts of Africa, work remains more widely accepted than school. The passage from play to productive activities is accomplished smoothly. Work is central to social integration and the transmission of knowledge and socialization, with productive assignments being adapted to the child's age and sex. Because work is an important preparation for the future, school pupils in Africa do not generally give up their work. Thus, for rural children in particular, school attendance generally entails a reorganization of time rather than a reduction of tasks.

Unlike child work, formal statutory education is a comparatively recent phenomenon and, in many rural communities in developing countries, is perceived to be closely linked to the organized labour market of the city and to industrial production. As such, it is not regarded by rural dwellers as an everyday activity but a luxury to which only a minority of children have access. More than half of the children in a sample working on Nepal's tea estates had never had the chance to go to school; over one third had been enrolled but subsequently dropped out; and only one child was attending at the time of the survey.[67] Half of those who had never attended said their parents would not allow them to go even if they had the opportunity.

A weak historical tradition in education tends to have the effect of perpetuating educational disadvantage through the generations because it depresses demand. This pattern is particularly evident in rural areas. Children may go to school, but the demands of work override those of education, forcing large numbers of pupils to abandon classes during peak labour seasons on the farm. In coastal villages in Kerala, when fishermen return home with a large catch, children skip school to help unload, sort and clean the fish. In remote villages in Bangalore, schools are closed during the harvest because of the lack of pupils.[68] An ILO report on Tanzania indicates the highest rates of non-attendance are in herding and plantation areas.[69] Rural parents in Tanzania argue that attendance is pointless because, on completion of primary school, children will neither be able to find paid jobs locally nor possess the skills to herd cattle. Many parents in Kerala also feel that school does not teach skills that are useful in daily life and that the onus is still upon them to train their children in jobs essential for future livelihood.

Primary school teachers on Malaysian rubber plantations were frustrated by the apathetic attitudes of parents towards their children's education.[70] The typical estate-worker parent was illiterate or semi-illiterate, and more than a quarter had never been to school.

School has little relevance for the Turkana herders of Kenya who depend on the work of even very young children:

"Among the nomadic herders of Kenya...the work done by children is crucial. For a herder child, work is one step along the path of growing up. Whereas a Western child's period of infancy and adolescence stretches until about the sixteenth year, among these herding families that period ends at four.... At four the serious business of life begins.... Studies of herder families have revealed a very similar pattern of work from one herding tribe to another; the job each person does is minutely specified and has evolved as a response to economic need. Both boys and girls from the age of four onwards collect firewood, and by the time they reach six or seven, boys help older children to fetch animals and graze goats and sheep on their own. As girls get older, their tasks, like those carried out by the women, become more numerous than boys'."

Source: Moorehead 1989, p. 48.

Education was seen as being unlikely to change the children's fate or to be relevant to their probable work roles as adults. However, on the plantations as in most other places, the problem is not just one of demand, but also of bad planning by the education sector. Thus, for example, the language of instruction in the estate primary schools is Tamil, whereas secondary schooling is conducted in Malay, contributing to a secondary school completion rate of less than 1 per cent of those that start this level.

The greatest educational disparities between rural and urban communities are evident in some of the poorest countries in the world. Friedman reports that in Bangladesh only 29 per cent of all 10- to 11-year-olds meet the minimum achievement criteria, with girls and rural children having an even lower rate.[71] One study measured performance in reading, writing, arithmetic and life skills in a population of 2,100 urban and rural boys and girls aged from 11 to 12 years. Although boys performed better than girls in the basics, rural girls outperformed rural boys in daily survival skills. Urban boys and girls did better than their rural counterparts in all areas. Sometimes even more disturbing than the rural-urban differences evident in poor countries such as Bangladesh are the disparities in middle-income countries such as Brazil, where public-sector spending on education is concentrated disproportionately on secondary and tertiary education in urban areas.

Because white-collar jobs and industrial employment generally are more frequent in urban areas, a lack of or failure in education has traditionally been perceived as less of a disadvantage for the rural child than for the urban one. However, the Center for Policy Studies in Education at the State University of Florida comments that changes in the global economy raise serious questions about this assumption.[72] Work within the family cannot be viewed as appropriate when it does not prepare a child to participate in a society where subsistence production and agricultural employment are declining and higher levels of literacy and numeracy are skills essential for secure, well-remunerated employment.

VIII. GENDER DIFFERENCES IN EDUCATION AND WORK

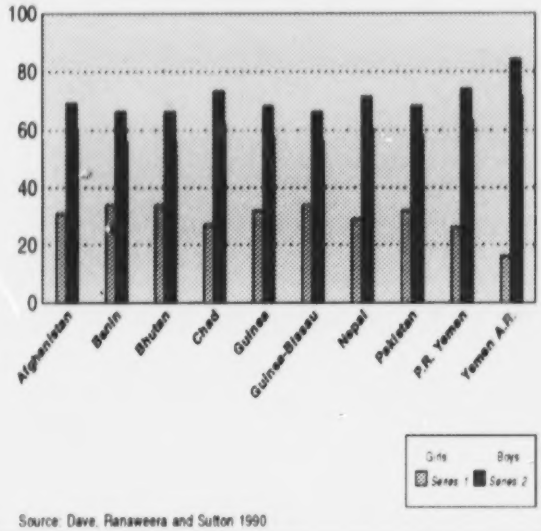
Levels of Education Participation

In many parts of the world, boys are far more likely to be allowed to attend school than girls. UNICEF reports that, in 1990, girls accounted for fully two thirds of the children globally without access to school.[73] In addition, more than two thirds of the children who drop out of school every year in developing countries are girls. Already discriminated against at entry, girls form a progressively smaller proportion of enrolments and a larger proportion of the unschooled youth population as they grow and develop. Van Beers notes that studies carried out in various countries indicate a trend of decreasing enrolment among girls.[74]

The gap between male and female primary school gross enrolment is widest in the poorest countries (Figure 2), so this is where investment needs to be concentrated. In South Asia, girl's primary school enrolment lagged behind that of boys by 29 per cent in the period 1986 to 1989. The situation is little better in sub-Saharan Africa, where girls trailed by 20 per cent in the same period; or in the Middle East, where the figure was 18 per cent.[75] In Guatemala, only one girl to every seven boys graduates from primary school.[76] These figures are reflected in extremely low literacy rates among adult women. Thus, for example, in Morocco, 98 per cent of women over 50 years of age and 56 per cent of girls between 5 and 14 years are illiterate, as are 80 per cent of Indian women. In Latin America and East Asia,

on the other hand, gender disparities in enrolment have been virtually eliminated. Indeed, in some Latin American communities, enrolments are higher among girls than boys.

Figure 2: Proportion of Girls in Primary School Enrolment (Selected Countries, 1985)



Source: Dave, Ranaweera and Sutton 1990

Economic Returns to Education

Parents think of educating children as investing in human capital for the family's and children's future benefit. In many societies, however, the economic returns to boys are perceived as being far greater than those to girls, attitudes that strongly influence decisions about education. Gender bias in inheritance and marriage practices and in the labour market is a decisive factor in the low participation of girls in education. According to custom, men frequently inherit from, and work and care for, their parents, whereas women marry out of their own and into their husband's family. Since sending girls to school entails immediate costs with no economic return in the long run, there is little incentive for families to invest in their daughters' education. Early betrothal, marriage, pregnancy and child care further limit girls' school opportunities because the earlier the marriage age, the less the parents enjoy the benefits of their daughters' education. In a study of educational deprivation among girls and women, King highlights the significance of early marriage, noting that, in Bangladesh, 75 per cent of ever-married females living in rural areas were married by the age of 17.[77] In India, 75 per cent of this group were married by age 19. King uncovered evidence suggesting that when girls do not marry so early but spend some time working in the labour force, parents are more willing to educate them.

The Impact on Education of Gender Differences in Workload

The nature and intensity of girls' work is very different from that of boys; this also influences their school participation. Education is linked in popular perception to skilled productive activities and not to unskilled or maintenance work within the home. The fact that women and girls tend to be confined to domestic work within the home or to unskilled and poorly remunerated jobs means that neither they nor their families are thought to be able to benefit from skills acquired at school. Girls also tend to work far longer hours than boys, often in physically or socially isolating occupations such as domestic service that make it difficult to attend schools in formal settings. Thus, time budgets for children in Nepal and Java indicated a major investment in work, with girls consistently doing more than boys, and children from larger families doing more than those from smaller ones.[78] Nepalese and Javanese girls are

The words of Phoolbathi, a mother and sweeper in Rajasthan in India, help explain why women's education levels are low:

"...nearly all our girls work as sweepers. Why should I waste my time and money sending my daughter to school where she will learn nothing of use...so why not put my girl to work so that she will learn something about our profession as well as be able to cook. My elder girl who is 15 years old will be married soon. Her mother-in-law will put her cleaning latrines somewhere. Too much schooling will only give girls big ideas and then they will be beaten up by their husbands or abused by their in-laws."

Source: Karlekar 1982 quoted in Burra 1989, p. 122.

also more likely than boys to be concentrated in domestic chores and child-care work within the home, activities that achieve less social recognition than paid or productive work, and for which school attendance seems unnecessary.

In a detailed account of children's maintenance activities within the home among the Tonga in Mola, Zimbabwe, as well as their productive work and income-generating activities, Reynolds reveals that many of the roles normally attributed to women are in fact undertaken by girls, with girls even having a heavier child-care load than women's. Tonga children have little opportunity to earn income but contribute 57 per cent of their families' productive labour, at least during periods of peak labour demand.[79] Girls assume the role of their mothers early on, working long hours throughout the year with little rest, while boys—like men—spend nearly half their time at leisure, especially during off-farm periods. By 10 years of age, girls already shoulder a full burden of work, engaging in a range of activities from domestic work, vegetable gardening and agricultural work to sewing and running errands.

The finding that much of the work normally attributed to women is in practice undertaken by girls has important implications for research on women's and girls' work elsewhere in the world and highlights the invisible nature of much of the work carried out by girls. Many domestic and child-care tasks that research on gender issues claim women do are in practice undertaken by their daughters or other girls in their charge. Often women are cast more in a managerial role. King makes the important point that, because of the central contribution girls make to household maintenance, allowing them to participate in schooling entails a major sacrifice on the part of their mothers and sisters, who have to make up for the loss of help in the home, as well as the resulting decline in their own earnings. This sometimes accounts for the reluctance of mothers to allow their daughters to attend school.

Gender Discrimination in Education

Evidence from research makes it increasingly clear that gender disparities in education are, to a significant degree, due not just to discriminatory attitudes in the population at large but also to culturally inappropriate delivery mechanisms and educational models used by the formal education system. At school, girls confront a range of systemic problems that affect their performance and contribute to failure. King notes that gender stereotyping in texts and materials used in school and gender bias in teachers' attitudes, leading to a neglect of female pupils, are widespread and entrenched problems in many parts of the world. The American Association of University Women Educational Foundation established that, in Washington,

D.C., girls are systematically excluded from equal education through stereotyping, being given less attention and treated with less respect than boys. They are consistently steered away from mathematics, science and technology, severely limiting their future opportunities in these and other better-paying fields central to development. Minority girls in the United States usually fare worse than non-minority ones.[80] Research in some developing countries shows that low levels of female participation in schools may be due simply to a lack of women teachers or the absence of segregated sanitation facilities. Older girls may be withdrawn from coeducational schools because it is believed they may dishonour their family through close association with the opposite sex, thereby damaging their marriage prospects. These are all failings in education that can be dealt with and are in urgent need of redress.

> "The failure to attract girls into school and keep them there has a major impact on their future child-bearing and mothering careers. A woman with several years of primary schooling bears many fewer children than a woman with only one or two; even modest classroom experience pushes down the death rate among future offspring....[E]quality of opportunity is also a matter of female right; and its results show up in a country's economic performance and productivity. According to the World Bank, a country with more educated girls is not only healthier, but wealthier."
>
> Source: Black 1993.

Girls' education will most likely continue to lag behind boys' until greater social value is attached to the work women and girls do, new roles are provided for girls and women within the labour market, education is made gender-sensitive, and recognition is made of the returns to society as a whole from the education of women and girls. The gender disparities in educational opportunity have grave implications for human development. They are significant not only because they indicate widespread gender inequity, but also because women's literacy shows greater returns than men's in terms of the survival, welfare and education of children. However, even though the situation is extremely serious in a number of countries, it is also the case that increasing access to education for boys in the long run helps girls participate too, because boys come to value education for their sisters.

IX. THE RESPONSIBILITIES OF GROWING UP

Age of Entry to Work

Age is a key factor influencing participation in and intensity of work. The age of entry to work varies considerably from occupation to occupation and from country to country, as well as between boys and girls and between urban and rural areas. Work hardship also tends to correlate with age in both boys and girls. Work responsibilities usually increase with age and, in many cases, result in a corresponding decline in school performance and attendance, leading eventually to desertion.

According to comparative research done by Cain, the age of entry to work is far lower for Bangladesh, than for Nepal, Java, the Philippines and Sri Lanka.[81] This could be connected with lower household income in Bangladesh. In most of the studies comparing rural and urban children, the former are found to enter productive work earlier than the latter. George, for example, found that Malaysian children who work start at an average age

In a sample from Lima, Alarcon established, surprisingly perhaps, that some children started school early—at 5 years of age; others started late—at 7 (or even as late as 11); but more than half started on time—at 6. There was no significant difference between working and non-working children, however, in terms of the age of entry to school. This is because in urban Peru children do not generally start work until 8 years of age. The pattern for rural areas, though, is very different because rural children begin working at about 5 years of age, which presents an early threat to schooling.

Source: Alarcon 1991.

of 11.9 years in urban areas and 10.8 years in rural ones.[82] Although explanations are comparatively sparse, rural-urban differences most likely derive from the fact that young children have a greater part to play in the division of labour in agriculture; in many rural areas, moreover, there is a lack of acceptance of education and a shortage of schools.

Age of Entry by Occupation

The popular perception is that rural work in herding and agriculture is safe and poses little or no health risks to young children. Urban occupations, on the other hand, are believed to be more hazardous. Street work, for example, entails negotiating with unknown adults and coping with the traffic. Also, it may require some capital and certainly presupposes some basic skills in financial management. The research conducted by Szanton Blanc and colleagues established that children involved in street-based work generally start work from 7 to 10 years of age.[83] Girls were found to start working on the street far earlier than boys in India—25 per cent of girls working on the streets in Delhi begin aged 7 or below; in Hyderabad, it is not uncommon for children as young as 6 years to begin working on the streets. Kenyan and Philippine children tend to start work later than this. Research on street work indicates that children start younger and are more likely to be accompanied by an adult when engaged in vending than when undertaking personal services such as washing and guarding cars.[84]

Children employed in workshops and factories often commence work later because such work may be obtained only through personal contacts and by recommendation, and because employers require a certain level of concentration, skill and employment continuity. The age profile of some occupations in urban areas especially is highly dependent on the place of work. Young children are more likely to stay in their own communities, whereas older children may travel to work.[85]

Evolving Work Responsibilities

Young children often accompany their mothers to work, learning skills through observation and by imitation, testing out acquired knowledge on the spot.[86] Early work experience may be acquired casually by undertaking domestic chores, running errands, gathering firewood, and carrying out other activities. Later on, work becomes a serious matter.

In agriculture, children assume a greater diversity of tasks and greater responsibility with increasing age. For example, Mendoza found that, among children engaged in asparagus

cultivation in Peru, those under 7 years are mainly relegated to collecting weeds and caring for irrigation channels.[87] Similarly, children in rural Chile begin work at the age of 6, mostly undertaking a variety of household chores, fetching and carrying, and light agricultural work.[88] Parents demand little of this age group. Children aged from 7 to 10 years, on the other hand, are much more involved and are introduced to a greater diversity of tasks and responsibilities. Again among Peruvian asparagus cultivators, tasks would include weeding and picking fruit and vegetables. Parents are far more likely to punish children in this cohort if they fail to complete the tasks assigned to them as directed. By the time they are 11-14 years old, they are involved in 13 different tasks, including such specialized ones as the selection of seed and application of manure; some are even given sole charge of fields. Kanbarghi and Kulkarni established that in Karnataka boys devote increasing time to productive activities such as farming and livestock herding as they grow older. Waged work becomes especially important in the 12-14 year age group. [89] Boys aged from 5 to 7 years work two hours a day on average, increasing to over five hours among 12- to 14-year-olds.

> When asked how she felt about her work, Angelita, a young girl who scales fish in Chorrillos, Lima, replied:
>
> "At first I was very shy but gradually I got used to this job of dealing with adult customers. I like to work, I like it much more than going to school because I got used to it when I was very small.... Children who don't work are like bums and don't love their mother enough to help her. I'll always help my mama both at home and in her business. When I grow up and have children, I'd like to have four. I'd also want them all to be girls because I've noticed that women work harder than men."
>
> Source: Bunster and Chaney, 1985, pp. 182-183.

Even though most of the evidence indicates that work intensity increases with age, it is important to bear in mind Ennew's finding for Lima that young children below age 9 or so are likely to hold more than one job, largely because of the extremely poor pay and casual nature of work in this age group.[90] The tendency of young children to be engaged in multiple occupations and tasks in the urban context particularly is missed in much research because of a focus on the principal occupation only.

Whatever the age of initiation into work, in most countries and occupations the greatest work transition for children takes place at about 12 years of age, when work intensity increases significantly. Tasks may change and the balance between unpaid and paid work shift. In some cultures, notably in Latin America, boys particularly are expected to become economically self-sufficient by the age of 12. Among paid urban workers in Malaysia, most 13- to 15-year-olds work for seven hours or more each day, and all unpaid family workers over the age of 11 were found to work more than five hours each day.[91] In research carried out in Colombia, Salazar argues that at the age of 12, children—boys particularly—usually stop doing domestic chores and take up work outside the household.[92] In Muslim societies, of course, the age-profile of girls' work is usually in complete contrast with this pattern because at the onset of puberty girls are drawn into seclusion within the home, where they assume greater domestic responsibilities.

Since the work of children under 12 years is not as highly valued as that of older children, it is hardly surprising to find that school-attendance rates in the younger age groups are better than for older children. In many countries, attendance begins to decline between the ages of 10 and 12 years; 12 is the critical age for school desertion because, by this age, children are thought to have received sufficient education. By the age of 10, rural children in Chile are undertaking their first paid work and, by 12-14 years, they are effectively

withdrawn from school to work full time—whether paid or unpaid. In Cochabamba, school desertion at age 12 is common, and a disproportionately large number of children working on the street are aged 10 to 14.[93] When 12 years is also the official age for completion of the primary school cycle, education policy almost has the effect of reinforcing customary age thresholds for school and work.

In Karnataka, impoverished parents send their children to school one year earlier than more affluent ones so as to be able to withdraw them as soon as they are fit to work, generally by the age of 10.[94] Girls in Karnataka work longer hours than boys in all age groups and spend more time on household chores. On the other hand, school attendance is greater among boys than girls in all age groups. However, the time invested in school in Karnataka consistently declines with age, especially after 12, and a large proportion of girls in particular are withdrawn from school at puberty.

Age interacts with several other factors to influence work patterns. In Bangladesh, Cain found the ages at which male children become active in more productive types of tasks to be higher for boys in landless households than among those from families owning productive assets.[95] According to Kanbarghi and Kulkarni, a similar pattern prevails in India, although families with landholdings of over 10 acres and more than six animals tend to rely on hired labour, with a corresponding reduction in the role of children in directly productive work. One explanation for the link between boys' productive work and landholding is that participation in these tasks depends partly on opportunity, and many opportunities are afforded only through land ownership. Also, in poor households, children could be required to undertake household chores to free parents for waged work.

X. SCHOOL AS A CAUSE OF WORK

The Shortage of Funds for Education

Achieving the goals of universal primary education and the elimination of child labour requires greater mobilization of national and international resources and effort than at present. The 1980s marked a serious downturn in the fortunes of countless countries worldwide, due to the indebtedness of governments, economic crisis and world recession. Everywhere, governments were forced to restructure their economies and adopt austerity programmes, leading to major social-sector cutbacks. Government expenditure on education fell dramatically in many countries, resulting in a decline in the quality and outreach of education. The proportion of the national budget allocated to education in Tanzania, for example, fell from 13 to 5 per cent over the course of the 1980s, and the corresponding decline in quality has been identified as a major factor in school desertion.[96] But low government spending is only part of the problem since international resources are also insufficient: less than 1 per cent of total aid budget goes to primary education.

Even though investment in education has revived somewhat in recent years, many difficulties remain. Major reinvestment in the 1990s has, in many cases, merely brought services back to their previous level. Funds are still urgently needed, especially for the nine most populous developing countries— Bangladesh, Brazil, China, Egypt, India, Indonesia, Mexico, Nigeria and Pakistan. These countries contain two thirds of the world's population, the largest number of illiterates and the largest number of out-of-school children—most of whom are girls.

It is not simply a question of finding funds for the poorest nations, however, but of stimulating political support for education everywhere. Sometimes educational deprivation is acute even in the wealthier countries and regions. Only five countries in the region made up of Central and South America and the Caribbean, for example, have percentages of children reaching grade five equal to or better than might be expected given their per capita gross national product (GNP).[97] Thus, one of the richest countries in the region, Brazil, still has a primary school completion rate of only 22 per cent, one of the lowest in the world.[98] Some 20 million primary school pupils in the region repeat a year of schooling every year, at an annual cost of about $2.5 billion.

In South and Central America and the Caribbean, education budgets expanded in the 1960s and 1970s, with corresponding increases in schools, enrolments, attendance and teachers. Literacy rates were far higher than in other parts of the developing world, rising from 72 per cent in 1970 to 83 per cent in 1985. Expenditure has fallen back since the 1980s, though, and this is paralleled by a fall in the growth of school enrolment. Similarly, distortions in spending have resulted in significant disparities among populations sub-nationally. The rural illiteracy rate is now three times higher than the urban for women and four times higher for men.

Source: Boyden 1992.

In many cases, the limited resources that are available are poorly distributed. The first priority in education should be a well-organized system of primary schooling, and yet a disproportionate share of spending goes to the higher levels (Figure 3). In Francophone Africa, East Asia, Latin America and the Pacific, tertiary education receives a greater proportion of government funds than primary. This is an inefficient use of resources both because primary education is of fundamental importance in itself and also because underspending at the primary level affects poor children disproportionately. In Costa Rica, a full 57 per cent of the benefits of primary education go to the poorest 40 per cent of the people while only 8 per cent goes to the wealthiest 20 per cent. Primary education is also more likely to have an impact on child labour than secondary, both because of the ages of the children it serves and because, if children can be attracted into and kept in school when young, their entry into the workforce may be postponed until adulthood.

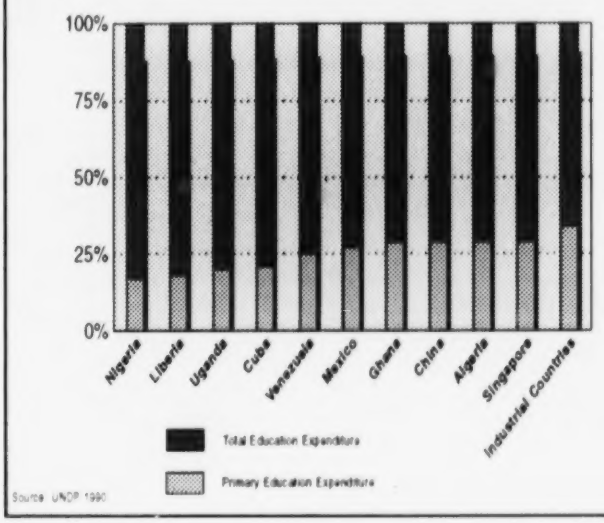
For working children to have greater access to education, increases in financial efficiency are required. "Most of recurrent education expenditure is absorbed by teachers' salaries and little or no funds are left for investment. Yet, most teachers are underpaid, if they are paid at all, poorly trained and therefore unmotivated."[99] According to UNDP calculations, recurrent costs in education can be brought down by 25 per cent with a package consisting of, among other things, more efficient use of community resources, multiple shifts, selective increases in class sizes and some introduction of cost recovery at the tertiary level.[100] Similarly, a UNICEF-supported study shows that with the introduction of a few selective cost-saving and cost-shifting reforms, the additional costs of achieving universal primary education could be halved.[101]

Increasing the size of classes is one way of reducing costs. Achievement tests show no significant difference between children in classes of 25 and those in classes of 40.[102] In countries that have been particularly successful in delivering low-cost primary education, such as Kenya and Zimbabwe, education receives close to $1 out of every $5 spent by government.[103] Cost-sharing can provide a crucial supplement to government spending, with contributions from a diversity of sources, including aid donors, private institutions, communities and parents. In Korea in the early-1970s, approximately 70 per cent of educational expenses were covered by parents and students. Similarly, in the Harambee

community schools programme in Kenya, parents take responsibility for the construction and maintenance of buildings, the provision of teaching aids and other running expenses.

All this suggests that much could be done to improve education uptake in developing countries simply by making better use of existing resources. It implies the need to examine the current distribution of resources and to restructure both national and aid budgets in favour of primary education. Restructuring is taking place in some countries. In many countries in sub-Saharan Africa, for example, the share of education budgets for primary schooling rose during the 1980s. In Latin America, there have been clear improvements in Brazil, Chile and the Dominican Republic.

Figure 3: Primary Education Expenditure as Percentage of Total Education Expenditure (Selected Countries, 1985)



The Critique of Orthodox Education Approaches

A frequent assumption is that school plays only a small part in contributing to child work and that the real problem is the adverse impact of work on education. While work is commonly understood to be potentially or actually harmful to children, education is generally thought to have an entirely positive impact on child development and welfare, and to reduce children's work as well. Yet, paradoxically, far from being a deterrent, school may be a significant cause of child work: many children must work to pay for their education; many others enter the workforce because they are disappointed by school. Ministry of Education statistics for Egypt indicate that the drop-out for the first six years of education (that is, the primary level) runs at present between 15 and 20 per cent.[104] However, more than half of the children who drop out do not immediately join the workforce, indicating that children's work participation, at least outside the home, is not necessarily the main reason for rejection of the school system. The same finding emerged from a study of household survey data conducted by Levison in Brazil, which established that more children stay away from school to do household chores and care for siblings than for outside employment.[105]

Children and parents may be favourably predisposed towards school. In this regard, school could offer important opportunities for working children in particular, complementing and reinforcing their work roles. In Lima, one of the most popular school activities was play—working children do not generally have the time either to play or socialize with other children.[106] Social science and mathematics were also popular. "Social science is perceived as a window to the world—probably because of working children's fascination with the urban environment and their curiosity to explore the world beyond the boundaries of their

city."[107] And children found school mathematics to be useful in their work.

Sustaining enthusiasm for education, however, is another matter. Many children are discouraged not by the demands of school work but by shortcomings in the school system itself. Success at school is not guaranteed; and throughout the developing world, late entry to school, grade repetition and low attendance are serious problems, undermining pupil confidence and contributing significantly to under-achievement and school desertion. When school is dull or even unpleasant, work becomes more attractive by comparison. The threat of school failure weighs heavily on children and can lead to loss of self-esteem and social discrimination. However, for a variety of reasons, it can be difficult for working children to do well at their studies. Certainly children who do well in school are more likely to receive the firm support of their parents than those who fall behind. Families may be bitterly disappointed that they cannot prevent their children from continuously repeating grades or being humiliated by teachers, despite the financial sacrifices made to enable them to attend.

> "On the whole, it can be said that most governments, during the period of educational expansion, followed a policy that was more oriented towards the supply side of education than the demand aspect of it. This means [that] education ministers and educational planners were mainly concerned about the number of schools to construct, the number of teachers to train and...textbooks to provide and how this would reflect in the national budget. Little if no attention was paid to the contents of education and to the kind of school that would best have suited children's living conditions and aspirations. However, this was not just a sign of ill will; the 'software' of education simply could not keep pace with the rapid development of its 'hardware'".
>
> Source: Levison 1993, p. 79.

The formal education system is in disarray in many parts of the globe. Even where reinvestment has occurred in recent years, enrolment has taken the greatest priority—increases in enrolment having been achieved largely by creating new facilities and taking on new staff. In contrast, insufficient attention has been paid to the quality of education and therefore to school retention.

Schooling can be completely at variance with the resource and skill requirements of the labour market.[108] In many communities, there is a mistrust towards education because the academic approach of the formal school system can only be applied to a small number of jobs. With the acute shortage of white-collar occupations in most developing countries, families have little incentive to invest in education since it brings no economic reward in later life. Under these circumstances, early entry into the workforce makes a lot more sense than school attendance because it facilitates mastery of skills useful in adulthood.

Some educationalists call for radical efforts to change and adapt the education systems of developing countries to better suit local social and economic conditions.[109] The capital-intensive, specialized education systems of the North, which are heavily reliant on formal institutions, academic curricula and highly trained teaching personnel, are not appropriate to the financial resources or the economic, social and cultural circumstances of many developing countries.

There is also considerable evidence that the orthodox approach is not always the most conducive to learning from the child's point of view, even in the Northern industrial setting. Much can be done to make formal education more appropriate and relevant to working children by using and adapting some of the key principles of non-formal approaches. Commentators such as Rogers and Maslow point to the many factors that in orthodox formal education systems are detrimental to the learning process.[110] First, pupils are generally

treated as objects to be taught, the passive recipients of information rather than active participants in their own learning. Second, teachers are perceived as authority figures possessing knowledge which is to be dispensed in a highly structured environment. Typically, trust between teacher and pupil is at a minimum; the teacher wields the power and the student is expected to submit and obey. In many cases, discipline is maintained by keeping students in an intermittent or constant state of fear.

Then there is the fact that in formal education systems learning is remote and academic. Information is normally imparted by means of verbal, intellectual instruction in the form of lectures supported by textbooks, and examinations are used to measure the extent to which the student has received that knowledge. The methods of learning by practice or basing learning on students' existing experience and skills—which are used widely to great effect in the non-formal education field—are rarely applied in regular schools. Finally, concern tends to be exclusively for the child's intellectual development, while social, moral and spiritual growth and other aspects of child welfare and development are ignored.

Systemic Problems

> It is seldom the lack of desire for education that limits participation of the poor. Rather, it is the economic, social and physical constraints that they face.
>
> The formal education system with its fixed schedules, large schools, and standard curriculum raises formidable impediments for children who must work. Yet, if the poor are to overcome their condition, their children must receive a basic education while they continue to work.
>
> Source: Schubert 1991, p. 87.

Evidence of shortcomings in the formal school system is widespread and is provided by statistics drawn from ongoing monitoring systems, by public-sector evaluations and reviews and by case studies and surveys of parents and children conducted by independent researchers. In rural areas in Colombia, teachers are frequently absent from their posts.[111] Schools are in short supply in Egypt and are overcrowded—even with three daily shifts, as many as five pupils may be required to sit at each desk.[112] There are acute shortages of teachers in some disciplines and surpluses in others. Space in Egyptian schools is insufficient for play and exercise; school buildings are dilapidated; and school facilities lack potable water, lavatories and, especially problematic for children attending evening classes, adequate lighting. In a recent survey in plantation areas in Malaysia by the Consumers' Association of Penang, hygiene was found to be very poor in some schools, and often there were no windows, fans or ventilation.

Some states in India provide books, uniforms and midday meals at school as incentives, and most villages have educational facilities. However, Kanbargi found that in one school—selected at random—there was only one teacher teaching five grades to 35 children.[113] Two other teachers were present only once or twice a month, since they had better-paid jobs elsewhere. When the villagers complained about the situation, the authorities threatened to close the school. In any case, the school was only open two to three hours a day and had no blackboard, map or chart. The windows and door had been stolen, and the children had to sit on the floor.

An evaluation of rural education in Chile found that the system had been designed to fit the urban context and was consequently insensitive to the socio-economic condition of rural populations.[114] Although educational infrastructure was adequate , the quality and

"The formal school curriculum organized according to grades and age levels of pupils attending school full-time is loaded with subject matter, much of which is determined by the certification requirements of the next stage of formal education rather than by the starting point of learners. Some out-of-school children are literate, others semi-literate and others quite illiterate. They have a variety of life experience, needs and aspirations, and since many of them come from remote rural or marginal urban areas, the curriculum has to be closely related to the realities of those situations and to their true potential for transformation. Relevant curricula are functional, that is, they enable learners to function more effectively in their likely situations, and if such functionality is evident, it increases motivation."

Source: Dave, Ranaweera and Sutton 1990.

methods of teaching were unsatisfactory. Learning was by rote, and the curriculum and textbooks had little relevance for rural social and productive life. In the poorest areas, because many schools had few students, classes were multi-grade, even though teachers were not trained to combine grades. Many schools failed to teach the full primary syllabus, and most had very poor resources. Despite provisions for flexibility in the school calendar, most schools applied the standard calendar, although highly inappropriate in rural areas.

Often, rather than the quality of education, it is the bureaucratic requirements of the formal school system that discriminate against poor children. A significant proportion of working children in Lima and recent rural migrants to Cairo failed to enrol in school for lack of a birth certificate.[115] Clashes in school and work schedules can also have a decisive impact on the educational participation of working children.

Education Costs

Education in most cases entails several direct and hidden costs—and often these can only be met through children's work participation. Research from several countries throughout the world suggests that "working may in fact contribute more to maintaining children in school than to keeping them out of it".[116] In Lima, for example, children work to put themselves through school and also to provide the funds—informally—to supplement teachers' salaries.[117] In fact, Alarcon found that many children in Lima earn more than their teachers. Indonesian child labourers cited the difficulty of paying school fees and the need to contribute to household or their own upkeep as the main reasons for discontinuing education.[118] In the Gambia, tuition is free at the primary level, but parents may have to purchase basic supplies and, in some areas as a condition for enrolment, even provide school furniture. A 1988 survey of school facilities showed that parents had provided 44 per cent of desks and 40 per cent of chairs in primary schools and that 17 per cent of permanent classrooms were built through community self-help.[119] Thus, while cost-sharing in education is a way of both bringing government costs down and increasing access, it also represents an added financial burden for parents and children, which, paradoxically, may become intolerable and lead to drop-out.

Even when tuition is free, the opportunity costs of school attendance can be high. While at school, children are unable to work or earn; and attendance often means they must work outside school hours to pay for transport to and from school, uniforms, books and

In many cases, school costs are a major causal factor in child work:

"I work in the city of Lima during the summer months. But I come from Huancayo, a large town in the Sierra. I work to put myself through school. Many kids like myself do the same. It is very hard to get jobs in the Sierra.... I have already saved 2,000 soles. With this money, I'll buy my uniform, shoes and books. I need more money to pay for my room and board at a family's home near the school which is in the Sierra."

Source: Bunster and Chaney 1985.

utensils. To reduce the opportunity costs of schooling, many non-formal programmes provide learning through work.

A UNICEF report suggests that in Egypt education offers little tangible return for the investment entailed.[120] As a result, disillusionment with education is widespread and growing. A full 72 per cent of mothers of 100 working children in Greater Cairo ascribed their children's employment to failure in education, and virtually all complained of the high costs of schooling. Interestingly, only in a small number of cases was the need to contribute to family income mentioned as a cause of child work. Fees are high in Egypt, especially at the secondary level, and pupils have to pay for admission to examinations. Depending on the total number of children, costs of education can amount to one quarter to one third of total household income.[121] However, curricula in the primary level are above the standard of the pupils, and even after spending four to six years in the system, many are still unable to read and write. Because of inadequacies in state education, parents are forced to arrange extra tuition for their children even to master the basics; expensive private lessons have reached unprecedented levels in recent decades.

Teachers' Attitudes and Treatment of Pupils

Hamed, reporting on an evaluation of a non-formal education programme in Egypt conducted by the pupils themselves, notes that the inhumane attitude of teachers and the bribery and corruption in the domain of private lessons are major factors in drop-out.[122] Detailed case studies of 18 children who had dropped out at the primary level revealed a hatred of school, due to maltreatment and school failure, among other things. Likewise, corporal punishment and persecution by teachers are major causes in children taking up employment or running away from home in Sudan.[123] The use of the birch to discipline children is commonplace in schools in Kerala.[124] The UNICEF study of Egypt comments that the inability of teachers to adapt teaching methods and delivery to the different ages of children is a serious issue.

Teaching in many schools is simply dull. Over a quarter of children in Patil's sample from Bangalore worked because school did not interest them, and a far smaller number worked simply because their friends did.[125] In Brazil, boredom with school and knowledge that it will not bring them better jobs or higher earnings are significant factors in desertion, although most children make a considered decision to leave.[126] In Lima, distaste for school was found by Alarcon to be a significant contributor to non-enrolment and drop-out.

A 12-year-old Tonga boy, Kimu, wrote in his diary about one incident at school:

"It was on Thursday morning while I was at school doing our school work (physical labour) with others, I saw my friend A. being beaten (for not bringing a hoe to school). I stopped working for a few minutes watching, and also I stopped making noise with the others.

In my heart I thought that if I was bigger than this teacher who was beating my friend I should also fight with him.

When my friend had been beaten he carried me on his bicycle home. My friend told me the whole story, and I myself told him that I was nearly in tears when he was being beaten."

Source: Reynolds 1991.

Interviews with children revealed teaching methods to be authoritarian and to emphasize abstract learning rather than learning through practice.[127] The rigid school calendar , poor teaching materials and teacher training, and inadequate facilities were all cited as contributing to educational failure among child workers. In many countries, teachers themselves have insufficient education and are also poorly trained and little motivated. Able to offer little, they simply direct pupils to copy texts or learn them by heart. Children find learning by rote dull: it destroys creativity and develops only a mechanistic understanding of the knowledge imparted.

Negative attitudes about child work among teachers and non-working pupils affect the self-esteem of working children, who may come to regard themselves as unfit for school. Salazar established that stigma was a major factor affecting low enrolment and attendance among children in brickyards in Bogotá.[128] Brickyard workers and their families are perceived as inferior, and dirtiness is associated with lack of intelligence. However, those children who did manage to go to school by working part time were pleased to be receiving an education, in spite of the discrimination, and expressed their wish to attend school full time.

In Chile, negative views of child work among school teachers were found to lead children to hide the fact that they work.[129] In-depth interviews with a sample of 11 teachers revealed that only four had positive views about children's work; of those, two qualified their statements by saying work could lead to desertion. Most considered that child work had no educative value and could even undermine education. Although the teachers did not know

"Hamdy is 13 years old. He failed grade six and did not want to go back to school, although his parents wanted him to do so. Hamdy says that he hated school because he did not understand what was being taught and because the teachers would beat him, especially the women teachers. When he started taking private lessons, the teachers stopped beating him although he still could not understand the lessons. At the end of the year, the teachers would give him the correct answers to the questions on the exam so he would pass from one grade to the next, although there was no improvement in his educational level. His mother added that he left school after failing because he did not want to be in a class with children younger than he was."

Source: Azer and Ramzey, undated.

which of their pupils worked, they described working children as being arrogant and ill-disciplined. Family disorganization and neglect—and not just poverty—were seen as major causes of child work. Only one teacher thought that combining school and work was a good idea.

XI. THE EDUCATIONAL FUNCTION OF WORK

Findings from research comparing differences in learning through work and at school have important implications for education reform. Work may have a variety of detrimental effects on education; but not all work is bad, and some forms of work can have an educational value greater than that of regular schooling. It may be that the impact of education and school performance could be much improved if some of the most effective principles of learning through work could be adopted in the school setting. One study, conducted in San Juan in rural Colombia by Laserna, arose out of the simple observation that although working children become competent in a range of important practical skills in the household—solving problems and dealing with complex situations as and when they arise— these same children seem to encounter great difficulty with learning in government schools.[130]

Laserna compared a child's milking lesson and a mathematics lesson in school. She found that the milking lesson contrasted favourably with the mathematics lesson and embodied several features that are important in facilitating learning. From a young age, children in San Juan accompany their mothers to work and regularly witness the act of milking. Laserna concludes that pre-knowledge of the actions and operations the learner is about to master is a significant factor aiding learning. Another factor is the repetitive and concrete nature of the act of milking, which promotes a holistic understanding of the process. As an activity, it fits in with other household routines and therefore has both utility and social value. Moreover, it is overt and organized and therefore can be scrutinized both visually and mentally, an attribute in stark contrast to oral discourse.

Knowing why a procedure should be carried out and knowing how to carry it out are important aids to learning and are entirely clear in the case of milking. Also, the novice milker is assuming some responsibility by helping the teacher. The work cooperation between teacher and learner is supplemented by short lessons. The learning environment is constructive and unthreatening in that the teacher helps the learner through an error-free performance by selecting cows that are easy to milk.

Many of the issues that emerge in the Laserna study reflect those raised by Rogers.[131] He argues that humans have a natural potential for learning and that all good education systems should build on children's capacities rather than on the gaps in their knowledge. Learning is best when threats to the learner's self-concept are small, he suggests, when experience can be perceived in great detail, and when learning is voluntary. Learning also proceeds most effectively when the student shares responsibility with the teacher in the learning process. For relations of equality to prevail, educators must put themselves on the same plane as their students and value the experience that the latter bring to the encounter. Further, self-initiated learning, involving both intellect and feelings, is the most lasting form of learning. Similarly, self-criticism and self-evaluation have greater effect in the development of independence and creativity than does evaluation by others. Ultimately, Rogers maintains, the most useful kind of learning is the learning to learn, which results in a continuing openness to experience and a tolerance of change.

XII. THE IMPACT OF WORK ON EDUCATION

Performance-related Indicators of Impact

Work may undermine learning in several ways, and the methods for recording the impact of work on education are various. One of the more straightforward measures of impact is when working children are seen to be dropping out of school, repeating grades and lagging behind the grade appropriate to their age.

The most consistent information on the impact of work on educational performance comes out of industrialized countries, where standards, monitoring systems and indicators in education are highly developed. Nonetheless, it is surprising how little of the research on education performance in the North makes a direct link to work. Two investigations conducted in the United States in the 1980s indicated lower average grades for children who work, although the research method used made it impossible to determine whether students with poorer grades were selectively attracted to the workplace or whether working caused students to earn poorer grades.[132] Also, there was no control for the amount of work, and so there is no way of knowing whether observed relations between working and grade averages were due to work *per se* or to the amount of work. Steinberg and colleagues, however, found no real evidence that those with lower grades were more likely to enter the workforce, arguing that whether students work is less likely to affect grades than how much they work. Thus, students in grade 10 working more than 15 hours per week and those in grade 11 working more than 20 hours had significantly lower grades for that school year than students who worked fewer hours.[133]

Other analyses also suggested that employment relatively early in the high school career may have a particularly negative effect on academic performance.[134] The year-to-date or cumulative grade averages of students who began working in grade 10 showed a decline, while averages of students who began working later did not. Thus, grade averages are depressed by intensive levels of workforce participation, especially among youth who begin to work early in high school years. Greenberger and Steinberg found evidence that intensive employment in high school years may signal a waning interest in school, which eventually leads to a decline in performance. These phenomena may be similar at the primary education level in developing countries and merit further research in a cross-cultural context.

Greenberger and Steinberg as well as McNeil all concluded that work reduces students' investment in schooling, causing them to disengage from learning, and teachers to disengage from teaching.[135] McNeil shows that many students accommodate the demands of their work by cutting back on school. For their part, teachers, frustrated by the students' failure to meet their expectations, lower their standards so as to accommodate working students by simplifying their lectures, assigning less homework and making the requirements for papers and presentations less demanding. Nearly half of the students said that they took only the minimum number of courses required for graduation; a similar number said they chose easier courses as a means of coping with work and school. Over half said that work interfered with reading and written assignments, and many complained that work made it difficult to concentrate in class.

Research on educational performance in developing countries is problematic because it is hard to isolate work as a significant variable from other possible intervening factors such as poor nutrition, ill health or dangerous living conditions. However, a rough indication of progress can be arrived at by recording quantitative information on age for grade averages, repetition and drop-out. Child street workers in Asunción were well behind their normal age

group in school and were concentrated overwhelmingly at the primary level.[136] Grade repetition was a more serious problem for younger children because the older ones preferred to leave school altogether rather than fall increasingly behind. Despite their disillusionment with school, however, more than half of the children expressed an interest in returning to their studies given the opportunity to do so.

> "...it is reasonable to argue that increasing a child's educational attainment is likely to increase the lifetime well-being of the child. If working or increasing hours of work implies that a child's lifetime educational attainment is significantly reduced, then it is also reasonable to argue that the lifetime well-being of the child is also reduced. This may be the case even if there is no simple causal relationship such that increased work activity means reduced schooling."
>
> Source: Levinson 1993, p.2.

The picture was rather different for Cochabamba, where the levels of educational attainment of both working and non-working children were generally low but—surprisingly—lowest among non-working children.[137] The explanation given for poor performance in this case was that many of the children in the sample were recent migrants from rural areas who had previously had no more than three years of schooling. Likewise, the findings of Oloko in Nigeria were ambiguous, in that, although the academic performance of children was affected adversely by work, working pupils tended to do better than non-working ones in terms of acquired moral values, and to make better leaders as well. If child hawkers or children engaged in domestic chores also do well academically, they have a better chance than others of becoming class captains. Impressed by the amount of energy expended by child hawkers in their work, the author questioned how some also managed to excel academically. The encouragement and support of the family was found to be a decisive factor, with some families contributing significantly to parent-teacher associations.

Perceptions of Impact

Another way of gauging, however roughly, the impact of work on education is by recording perceptions of pupils and teachers on the subject. Again, this method of research reveals some contradictions and some surprising results. A UNICEF study of working children in Sri Lanka, for example, found that, in their view, work does not necessarily impair education. Of working children attending school, 76 per cent stated that their job did not interfere with education, and most had no intention of giving up work. Remarkably, half also said that they were close to the top of their classes on the last term examinations.[138]

Greenberger and Steinberg assessed students' perceptions of the impact of employment on school achievement in the United States. Twenty-seven per cent of working youngsters claimed their grades had declined since they began working, 16 per cent said they had risen, and 56 per cent reported that they had remained the same. In a study conducted by McNeil in four Wisconsin high schools, 44 per cent of juniors and seniors currently working claimed that employment was a 'moderate' or 'very important' obstacle to achieving good grades.[139]

Alarcon interviewed children in Lima on this same subject. A third of working children in his sample had repeated at least one grade, the same percentage admitting that work interfered with study.[140] Two thirds of the children, however, perceived no ill-effects to schooling from their work. The main complaints for those seeing work as an obstacle were that it took time from homework and that the overlap in school and work schedules caused

"Theoretically, the direct connection between children's work and schooling activities is provided by time limitations. At some number of hours spent in work and schooling, a child will be unable to increase time in one activity without decreasing at least productivity and sometimes time spent in the other activity. The overall relationship between hours worked and school attendance must be negative, although there may be an initial positive effect which is overwhelmed as work hours increase. For example, effects of working on a child's school performance can range from the positive influence of a greater appreciation for learning or more energy resulting from an improved diet... to negative effects, including reduced ability to concentrate, less available time and/or energy for homework and study outside of school, and failure to pass into the next grade level."

Source: Levinson 1993.

them to arrive at school tired and late. Of those children not in school, all had attended at some time, and most had left after a teachers' strike and not for economic reasons or because of work. Of those attending, the majority did so daily, whereas some were absent either frequently or occasionally.

Teachers' perceptions of the impact of work on education can be significant too—but not just because teachers sometimes have detailed knowledge of the effect of children's work activities. Their views are also important in so far as they indicate the degree to which schools are sympathetic or responsive to working children's problems and needs. In rural Chile, nearly 70 per cent of the teachers interviewed in 60 schools saw work as impairing educational performance.[141] They argued that absenteeism becomes a problem in about grade five and is particularly acute in grades seven to nine, when many young people drop out altogether in order to join the workforce full time.

Often it is not that rural children in Chile are absent for long periods but rather for part of the day or part of the week. This affects their ability to complete tasks assigned in school or for homework, seriously interrupts continuity in learning, undermines discipline within school and reduces the motivation to study. Children frequently arrive at school already having worked several hours and thus resent expending effort on learning, seeing school merely as additional work. As children fall behind in class and fail to understand the materials used, teachers are forced to return repeatedly to topics already covered to allow these students to catch up. This disrupts the learning process for the class as a whole. Despite wide acknowledgement among teachers of these problems, only 20 per cent of the schools in the sample had tried to do something about them, such as providing extra tuition or setting aside time for homework during schools hours.

Physical Health Impacts

School performance may be affected not just by the drain on energy and concentration due to work but also by occupational health problems and accidents at the workplace. It is possible, for example, that work might stunt intellectual development and affect the capacity to learn. Also, school performance may be undermined by poor nutrition—although, in this regard, children who work are sometimes better nourished than are non-working children because they can use their earnings to purchase food.

As yet there has been little systematic research on the health impacts of work and their effect on educational performance. Assessment is urgently needed, for example, of the health implications of specified work conditions and hazards, the length of the working day and the intensity of work. Studies that have attempted to look at the effect of work on health have not generally focused on the issue of educational performance and have often drawn samples from working children outside the school system rather than working pupils. However, from the broad evidence of work-related health impairment, it is possible to deduce at least some effect on educational performance.

The most comprehensive data on work-related injuries to children concern agricultural occupations.[142] A rough measure of impact can be achieved simply by asking children to report on their health problems, although the obvious limitation of self-reporting is that lay observations cannot often detect longer-term or sub-clinical conditions, some of which may be extremely serious. Thus, health perceptions tend to be highly subjective, are not precise diagnoses and do not indicate the intensity of a given health problem. However, in one ILO report, muscular, chest and abdominal pain, headaches and dizziness were stated as common complaints among working children; respiratory symptoms such as coughs, breathing difficulties and influenza were also reported more frequently among working children than among schoolchildren.[143]

In 1984, the World Health Organization (WHO) undertook a series of comparative studies in Nigeria, India, Malaysia and Korea, in order to measure the effects of work on growth and development.[144] The findings have major implications in terms of the potential impact of work-related illness or accidents on school attendance and performance, although this was not the focus of the research. Working children were found to have more musculo-skeletal disorders, poorer nutritional status, lower haemoglobin levels, higher incidence of respiratory and gastro-intestinal diseases and more frequent self-reporting of headaches, fatigue and vision problems than non-working children.

Working children in Malaysia have a high incidence of accidents as well as mild nutritional deficiencies and show lower average height and weight for age than schoolchildren in a control group.[145] Some are exposed to toxic substances and work in environments in which measurements for most parameters—including noise, heat stress and thermal comfort—are above threshold limits. Similarly, ILO reported that children in the pyrotechnics industry in the Philippines were more prone to malnutrition and respiratory, gastro-intestinal and skin diseases than were a control group of non-working children.

In another study in the Philippines, the health of children working in the wood and clothing industries was compared with that of schoolchildren through observation, anthropometric measurement and direct interviewing techniques.[146] It was found that the child workers belonged to a lower income-group and had poorer nutritional status than did schoolchildren. Whereas skin diseases occurred at roughly the same frequency in the two groups, working children reported higher frequencies of a wide range of symptoms.

In an investigation in rural Kashmir by Mattoo, Rauf and Zutshi, 500 child carpet-weavers between the ages of 6 and 16 years were found to be shorter and lighter than 450 schoolchildren of similar backgrounds and to have a higher incidence of conjunctival pallor, stomatitis and atrophic papillae.[147] The young carpet-weavers complained of headaches, backaches, pain in the abdomen and limbs, and blurred vision; they also had a higher proportion of respiratory-tract infections than the schoolchildren. Many of these complaints could be attributed directly to their work: interestingly though, some of the illnesses of unknown origin, such as dysentery and fever, were more common among schoolchildren.

Mental Health Impacts

The concern is not just with the physical impacts of work but also with mental health impairment, such as neurotic or even psychotic disorders and impaired concentration, intelligence or intellectual development, because this could have particular significance for schooling. Again, some of the most consistent research on the mental health and school performance of working pupils has been carried out in the United States by Greenberger, Steinberg and Vaux, although the focus has been on adolescents rather than younger children.[148]

Work-related stress was found to have an impact on adolescent students in the United States. This is significant because in many cases students are under a great deal of pressure and must balance the demands of paid work with unpaid household work and school. Often the time and energy spent in all of these activities, combined with the time expended travelling between school, work and home, leaves adolescents little opportunity for relaxation or leisure. The results of the U.S. investigation were conflicting, however. Girls with part-time jobs showed a higher incidence of physical and psychological symptoms than non-working girls, whereas a different pattern emerged for boys, who, in fact, showed fewer symptoms as work-related stress increased. Despite this finding, though, there was strong evidence to indicate that the more time spent in work, the greater the use of alcohol, cigarettes and marijuana—a possible indirect effect of stress.

A deterioration in intelligence test scores after prolonged involvement in scavenging was reported by Gunn in the Smokey Mountain project. Cognitive impairment has also been recorded by Ebigbo and Izuora among domestics in Nigeria.[149] Research in Egypt assessed the psychological health of working children by testing for intelligence and personal and social adaptation in the subject population and in a control group of schools pupils.[150] No significant difference was detected in terms of personal adaptation, but the control group fared better in the two other areas. The authors pointed to the difficulty of making assessments of this nature, however, in that the tests used were based on 'standard' measures of child development and were therefore biased in that they did not pick up the special professional and social skills acquired by children at work and in related social interaction.

XIII. CONCLUSION: SOME POLICY IMPLICATIONS SUGGESTED BY RESEARCH ON EDUCATION AND WORK

Because of the diversity and complexity of their circumstances, their isolation from education facilities, the poverty that often drives them to work and their large numbers, working children frequently have only part-time access to school. Many are unable to attend. As a result of both budgetary constraints and systemic problems, regular schooling has proved inadequate to the task of providing education for all. Nor is NGO-managed, non-formal education in itself a solution to the problem since, with few exceptions, it has limited outreach capacity and may not always be sustainable. Nevertheless, there are many advantages in non-formal approaches especially for the working child. Some of the more promising components of an education for working children focus on reduced costs of schooling to families and pupils; learner-group heterogeneity; flexibility in scheduling and entry to and exit from school; and decentralization and stakeholder participation in management and administration. Such innovations in education need by no means be the

exclusive domain of non-formal approaches. With full commitment from government and proper procedures for monitoring and evaluation, many of these components can be taken up and adapted and developed within the regular school system, first on a pilot basis and then on an expanded scale generally beyond the reach of non-formal programmes.

Experiments of this nature are already under way in the formal education systems of several countries. Education reform outcomes, in terms of impact on child labour and child work, are not predictable, however, and the problems and limitations of reform efforts need to be monitored, assessed, and disseminated widely so that others may learn from them. For example, attracting more girls into school may mean using female teachers, trainers or counsellors; having segregated sanitation; or, in some areas, establishing segregated schooling. It may also mean using a curriculum that teaches the knowledge and skills that girls and their communities value and can use. Affirmative action does not have the same impact in all settings, however, and in some may be rejected by parents as culturally inappropriate.

Under present economic conditions, greater access to education for children may mean an increase rather than a reduction in children's work responsibilities: many children work in order to pay school costs. Still, this key finding and others like it that emerge from child work research are little examined by education planners and educationalists. There needs to be a more consistent exchange between people engaged in research on child labour or child work and those engaged in education provision and education planning. Much of the education literature refers to the importance of responding to out-of-school children, for example, and yet the substantial constraints on their school participation imposed by work are frequently disregarded. To be more effective at reaching working children, and especially at eliminating the most hazardous forms of work, education policy must build on the findings from the child labour research. And in some cases, because of limitations in the research itself, policy makers may need to initiate new studies. Much needs to be learned, for example, about the different impacts of work and education on child health, welfare and development.

One finding common to many of the child work studies is that child work does not occur arbitrarily but is concentrated among certain social and economic categories or groups. Thus, for example, it has been argued that rural children work at younger ages than urban children, and girls work more than boys and are also more likely to be engaged in occupations for which skills imparted through education are believed unnecessary. In many cultures, children are regarded as having entered adulthood by the age of 12 or so and are required to work as long and as intensely as adults. Policy should reflect these patterns by targeting with innovative measures those most marginalized in the educational process and those most burdened by work. Special effort is needed to identify which children are experiencing educational difficulties because of work and, above all, which children are engaged in dangerous or exploitative labour and are therefore losing out on education altogether. Viable economic and educational alternatives for the most susceptible groups are required to help bring an end to hazardous labour.

The distribution of work hardship between rural and urban children, between younger and older children, and between girls and boys, may seem fairly obvious and may even be clearly reflected in education statistics when properly disaggregated. But there are some less obvious findings in the research. One that is as yet little developed and little assessed for its educational consequences is that, in many communities, it is not absolute poverty, but rather relative poverty that causes children to work. In other words, in areas of rapid social change or economic transformation, children work to buy non-essential goods or 'luxuries' because of raised social or material expectations. If it is to avert this trend,

education is greatly challenged because even income-substitution schemes or financial incentives to attend school are not always likely to have the desired effect of attracting children away from work. Educationalists may need to look more closely at adapting some models of adult education, e.g. flexible scheduling and curricula and 'learning by doing', to primary school groups.

The quality of information in the research on child work is not consistent, and there are many gaps. This presents a problem for more effective policy development in the education field. More needs to be understood about relative susceptibility to labour hazards among ethnic or religious minorities or rural-to-urban migrants, for example. Some studies imply negative correlations between certain occupations and school attendance. It is important to establish what the educational implications are of children's involvement in socially marginal occupations or socially isolating ones such as domestic work. And what are the educational implications of waged employment or piece-rate payment as opposed to self-employment or family labour? There is also the question of how the combination of school and work affects school performance and to what extent work may either reinforce or detract from the value of education. Many children who join the workforce find they are unable to continue school, even when they want to. A great deal needs to be done to help working children sustain their enthusiasm for education and to help school drop-outs return to education without stigma and with appropriate awareness of their special needs.

Education cannot be divorced from its wider social and political context, and social and economic transformation through education is effective only with a proper commitment on the part of both government and civil society. Given the statistics on drop-out, it would appear that this commitment is not assured. In many parts of the world, parents and children remain indifferent to education, and government is failing either to increase access or to improve quality.[151]

Educational reform should be supported by other public-sector measures, including poverty alleviation, fiscal and labour market reform and technological improvements, intended to relieve the economic and social burdens of poor families and bring an end to dependence on child labour. These measures should be complemented by efforts to change popular views concerning children's welfare and children's rights and to develop attitudes that favour education over work, taking account of the possible damage caused to children by their work. Among other things, this will involve the expansion of adult education, especially for women, and early childhood development and day-care programmes, particularly for children and families from rural and marginal urban areas. Imparting literacy and practical and employable skills to adults may improve the economic condition of families, thus reducing reliance on children's work. At the same time, educating parents will help motivate them to send their children to school[152] and to seek viable alternatives to reliance on child labour for household income generation.

NOTES

[1] Cunningham, 1993.

[2] United Nations Development Programme, 1993.

[3] Meir, 1991.

[4] Himes, Colbert and Garcia Mendez, 1994.

[5] Heywood, 1988.

[6] Weiner, 1991.

[7] Boyden, 1991.

[8] Ayala, 1982.

[9] Salazar, 1990.

[10] Myers, undated.

[11] Himes, Colbert and Garcia Mendez, 1994.

[12] Ayala, 1982.

[13] Alarcon, 1991.

[14] Boyden, 1991.

[15] Gouveia, undated.

[16] Ennew, 1982.

[17] Oloko, 1991.

[18] White and Tjandraningsih, 1992.

[19] George, 1992.

[20] Oloko, 1991.

[21] Penaloza, 1987.

[22] Szanton Blanc and Contributors, 1994.

[23] Ennew, 1982.

[24] Kanbarghi and Kulkarni, undated.

[25] ActionAid, 1994.

[26] *Ibid*; White and Tjandraningsih, 1992.

[27] Rawat and Goyal, 1975.

[28] Cain, 1977; White, 1975; Arnold et al., 1975.

[29] Marcondes Cupertino, 1990.

[30] Krishnakumari, 1985; Azer et al., 1993.

[31] Child Workers in Nepal, 1991.

[32] Mamdani, 1972; Oppong, 1973; Caldwell, 1977.

[33] See for example: Reynolds, 1991; Safilios-Rothchild, 1980.

[34] Safilios-Rothchild, 1980.

[35] ActionAid, 1994.

[36] ActionAid, 1994; Agarwal, 1992; Van Beers, 1994.

[37] Burra, 1989.

[38] Pond and Searle, undated.

[39] Mansurov, 1993.

[40] White and Tjandraningsih, 1992; Gunn and Ostos, 1992.; Patil, undated.

[41] Patil, undated.

[42] Singh, Kaura and Khan, 1980.

[43] Gunn, 1993.

[44] ILO and UNICEF, internal documents.

[45] Bekombo, 1981; La Fontaine, 1985.

[46] MacPherson, 1987; White and Tjandraningsih, 1992.

[47] Bekombo, 1981.

[48] Ennew and Young, 1982.

[49] Myers, undated.

[50] Couveia, undated; Szanton Blanc and Contributors, 1994.

[51] Couveia, undated, p. 10.

[52] Szanton Blanc and Contributors, 1994.

[53] Tacon, 1981.

[54] Tienda, 1979.

[55] Krishnakumari, 1985.

[56] Azer et al., 1993; Azer and Ramzey, undated; Oort de Sanchez, 1983; Ennew, 1985; ILO, internal documents.

[57] Boyden, 1993.

[58] *Ibid.*

[59] Nag, White and Peet, 1978; ActionAid, 1994.

[60] Cariola and Cerri, 1986.

[61] George, 1992.

[62] Bequele and Myers, forthcoming.

[63] Kanbarghi and Kulkarni, undated.

[64] Krishnakumari, 1985.

[65] MacPherson, 1987.

[66] Bekombo, 1981.

[67] Child Workers in Nepal, 1991.

[68] Shariff, undated.

[69] International Labour Organisation, 1992.

[70] Jomo et al., 1992.

[71] Friedman, 1992.

[72] Center for Policy Studies in Education, 1993.

[73] United Nations Children's Fund, 1992b.

[74] Van Beers, 1994.

[75] Friedman, 1992.

[76] Black, 1993.

[77] King, undated.

[78] Nag, White and Peet, 1978; Actionaid, 1994.

[79] Reynolds, 1991.

[80] American Association of University Women Educational Foundation, 1992.

[81] Cain, 1981.

[82] George, 1992.

[83] Szanton Blanc and Contributors, 1994.

[84] Boyden and Holden, 1991.

[85] Boyden and Holden, 1991; Manzilla, 1985.

[86] Bunster and Chaney, 1985.

[87] Mendoza, 1993.

[88] Gajardo and De Androca, 1988.

[89] Kanbarghi and Kulkarni, undated.

[90] Ennew, 1985.

[91] Jomo et al., 1992.

[92] Salazar, 1990.

[93] Penaloza, 1987.

[94] Caldwell, Reddy and Caldwell, 1984.

[95] Cain, 1977.

[96] International Labour Organisation, 1992.

[97] United Nations Children's Fund, 1994, p. 49.

[98] Himes, Colbert and Garcia Mendez, 1994.

[99] Meir, 1991, p. 80.

[100] United Nations Development Programme, 1991.

[101] Colclough and Lewin, 1992. See also Dall, 1993.

[102] United Nations Development Programme, 1991.

[103] Meir, 1991.

[104] United Nations Children's Fund, 1990.

[105] Levison, 1993.

[106] Bunster and Chaney, 1985.

[107] *Ibid.*, p. 200.

[108] Buchanon, 1975.

[109] *Ibid.*

[110] Rogers, 1983; Maslow, 1971, quoted in Hamed, 1992.

[111] Palacios, 1981.

[112] United Nations Children's Fund, 1990.

[113] Kanbargi, 1988.

[114] Cajardo and De Androca, 1988.

[115] Abdalla, 1988.

[116] Myers, undated, p.16; Bonnet, 1993; Gunn and Ostos, 1992; Fergany, 1993.; International Labour Organisation, 1992b.

[117] Alarcon, 1991.

[118] White & Tjandraningsih, 1992.

[119] United Nations Children's Fund, 1992.

[120] United Nations Children's Fund, 1990.

[121] Azer et al., 1993; Abdalla, 1988; United Nations Children's Fund, 1990.

[122] Hamed, 1992.

[123] Boyden, 1991.

[124] Nieuwenhuys, 1994.

[125] Patil, undated.

[126] Levinson, 1993.

[127] Alarcon, 1991.

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